

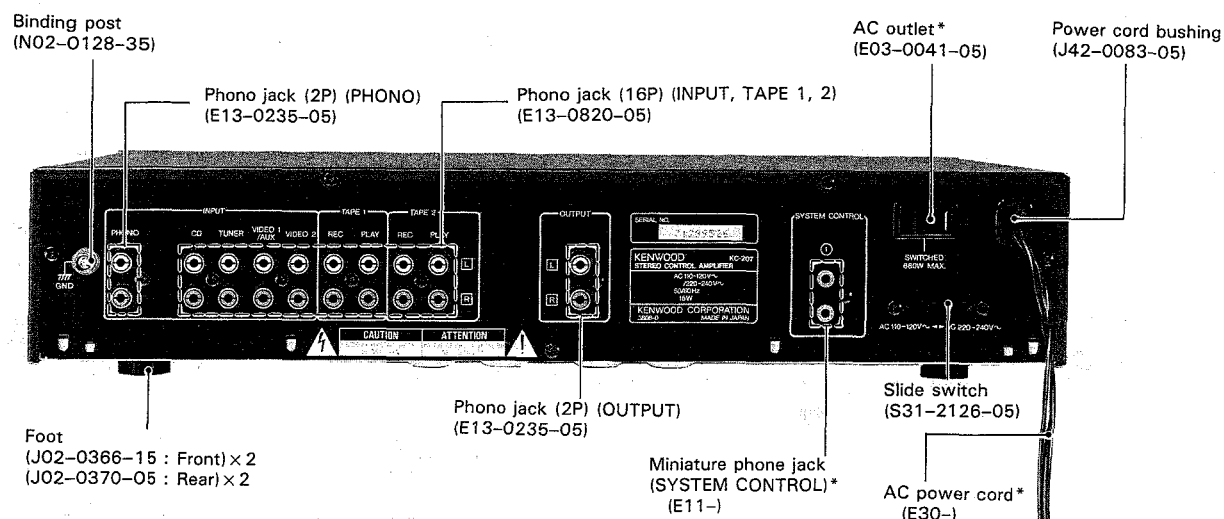
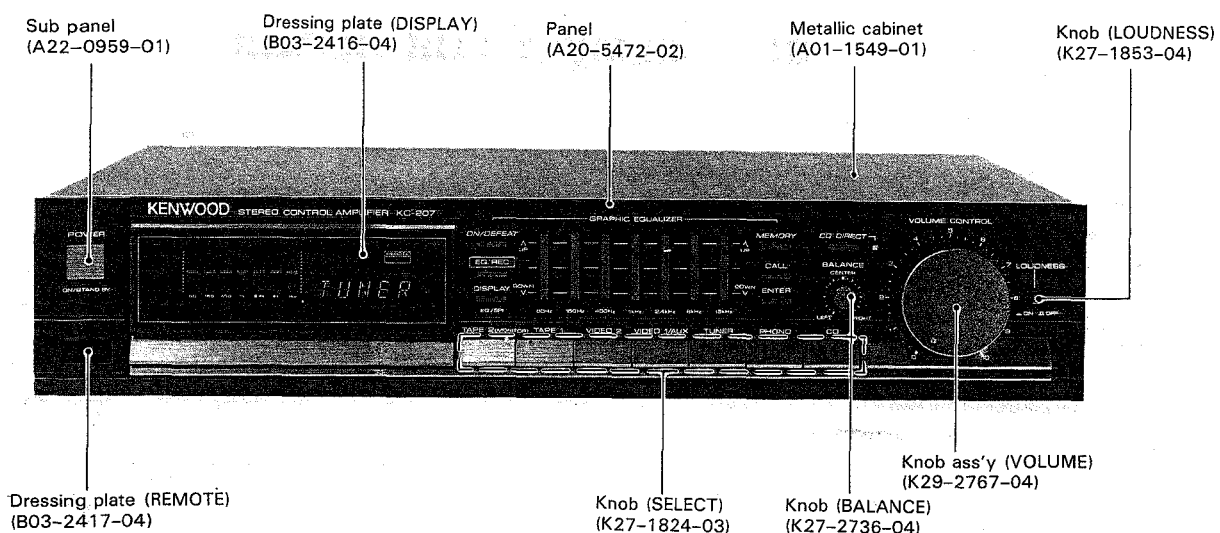
STEREO CONTROL AMPLIFIER

KC-207

SERVICE MANUAL

KENWOOD

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B51-3505-00(J)1646



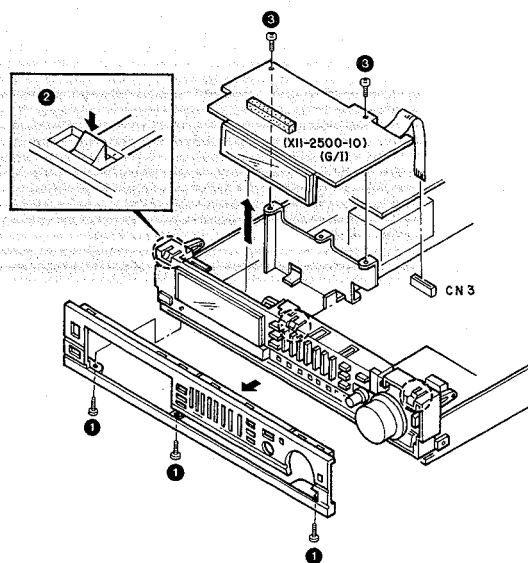
* Refer to Parts List on page 32.

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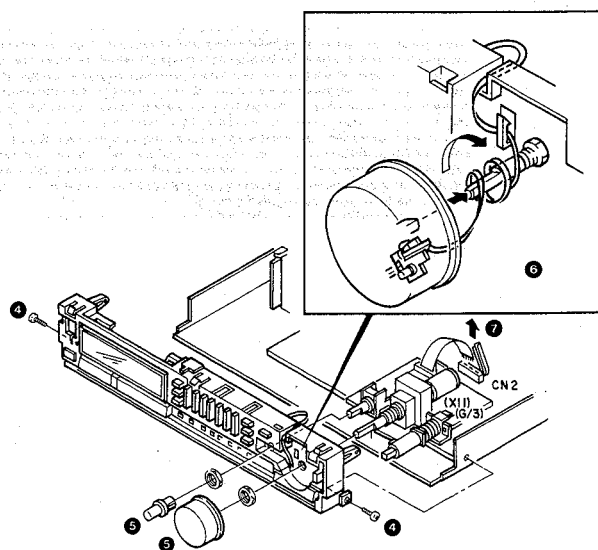
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DISASSEMBLY FOR REPAIR

1. Remove the metallic cabinet before doing the following: Remove the three screws (1) holding the front panel to the chassis.
2. Press the three claws (2) on the subpanel holding the front panel in the direction of the arrow, then remove the front panel. (Take care not to hurt the volume knob.)
3. Remove the two screws (3) holding the Control unit (X11-2500-11) (A/7).
Remove the cord from the connector (CN3) of the Audio unit (X09-2590-11).

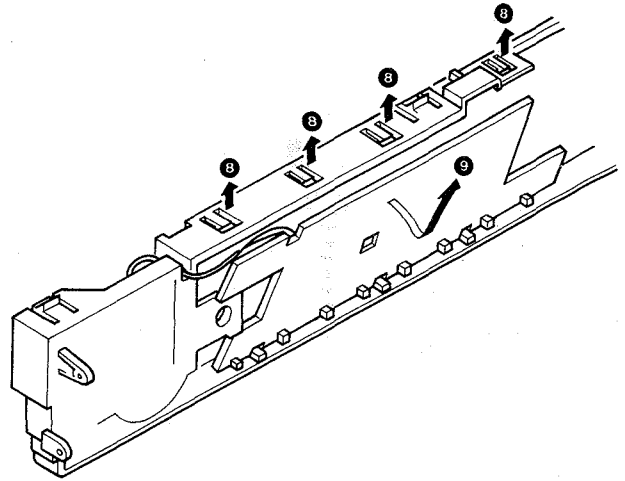


4. Remove the two screws (4) holding the Subpanel at both ends.
5. Remove the volume and balance knobs (5).
6. Fitting the volume knob.
Turn the volume control spindle fully clockwise (in the direction of the arrow) and wrap the cord around the spindle twice, then fit the volume knob (6).
7. Remove the cord from the connector (CN2) of the Audio unit (X09-2590-11) (7).

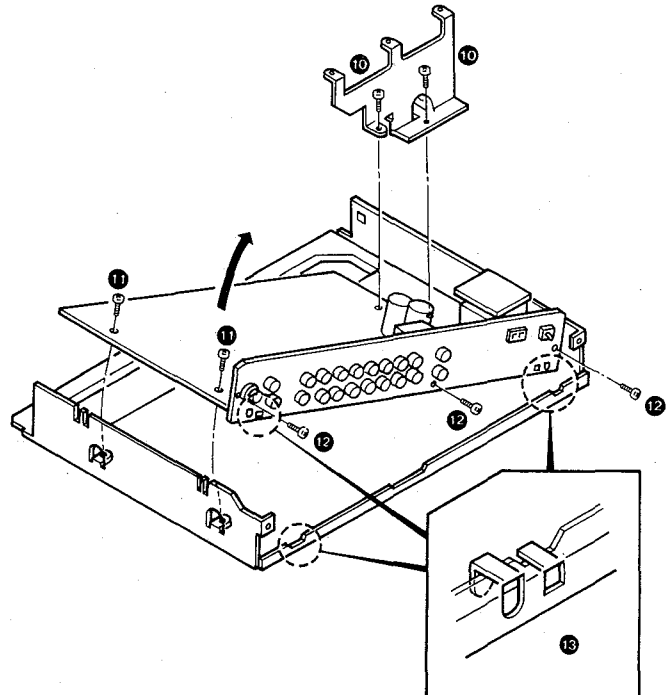


DISASSEMBLY FOR REPAIR

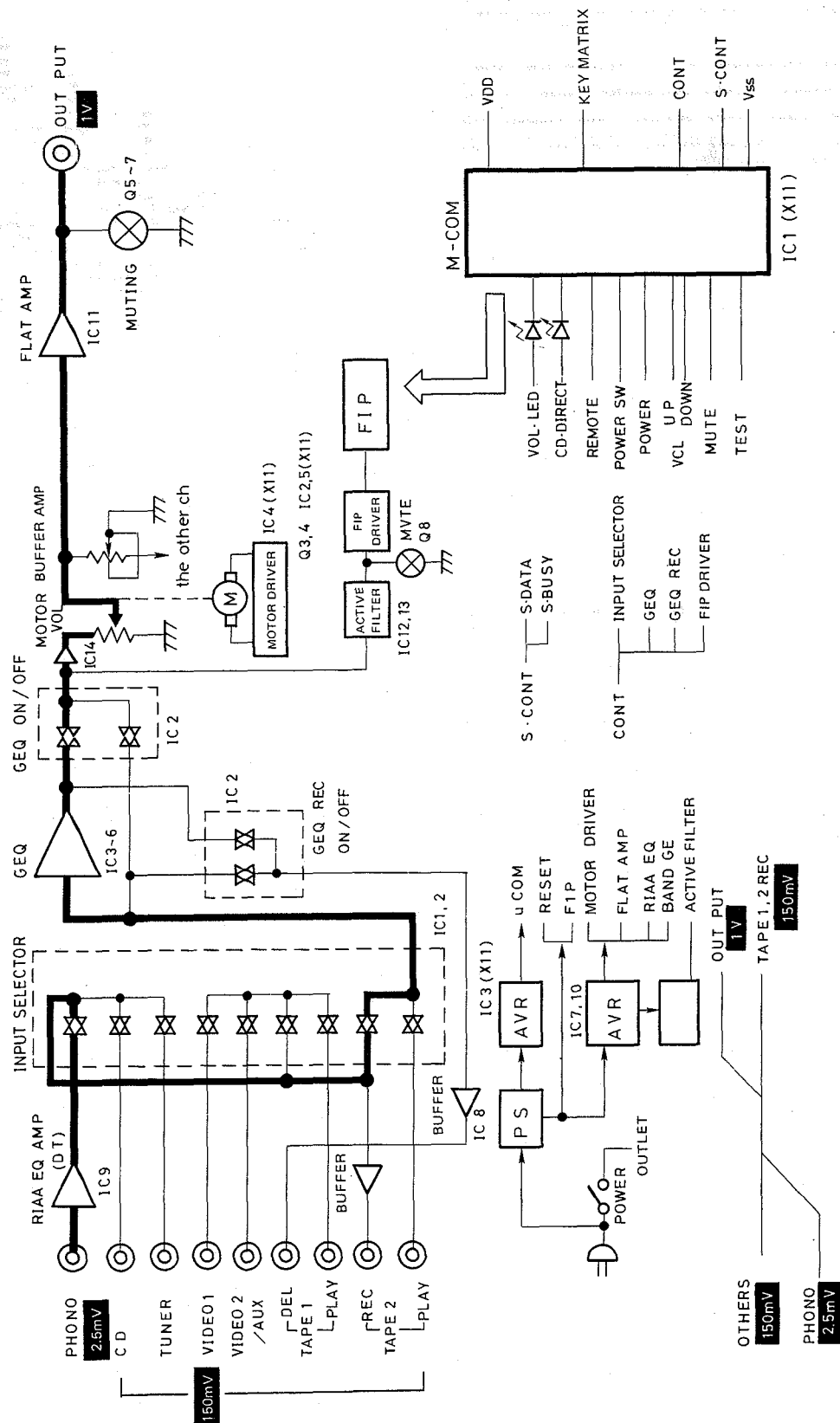
8. Press the four claus on the subpanel holding the Control unit (X11-) (B/7) in the direction of the arrow (8).
9. Remove the Control unit (X11-) (B/7) in the direction of the arrow. When installing, hook the PC board lower claws into place, then insert the Control unit in the opposite direction to that shown by the arrow (9).



10. Remove the two screws (10) holding the clamp to the chassis.
11. Remove the two screws (11) holding the Audio unit (X09-2590-10) to the rear panel.
12. Remove the three screws (12) holding the rear panel to the chassis. Lift the PC board in the direction of the arrow.
13. When fitting the rear panel to the chassis, hook the two claws of rear panel to the chassis, hook the two claws of rear panel to the chassis (13).



BLOCK LEVEL DIAGRAM



CIRCUIT DESCRIPTION

FUNCTION OF COMPONENTS

Control unit (X11-2500-11)

Component	Use/Function	Operation/Condition/Interchangeability
IC1	Microprocessor	
IC2	FIP driver	5V single power supply
IC3	3-pin regulator	+5V constant voltage
IC4	Reversible motor driver	For driving electric volume control
IC5	FL tube filament ON/OFF	
Q1	Stop circuit	
Q2	Reset circuit	
Q3, 4	FL tube filament ON/OFF	

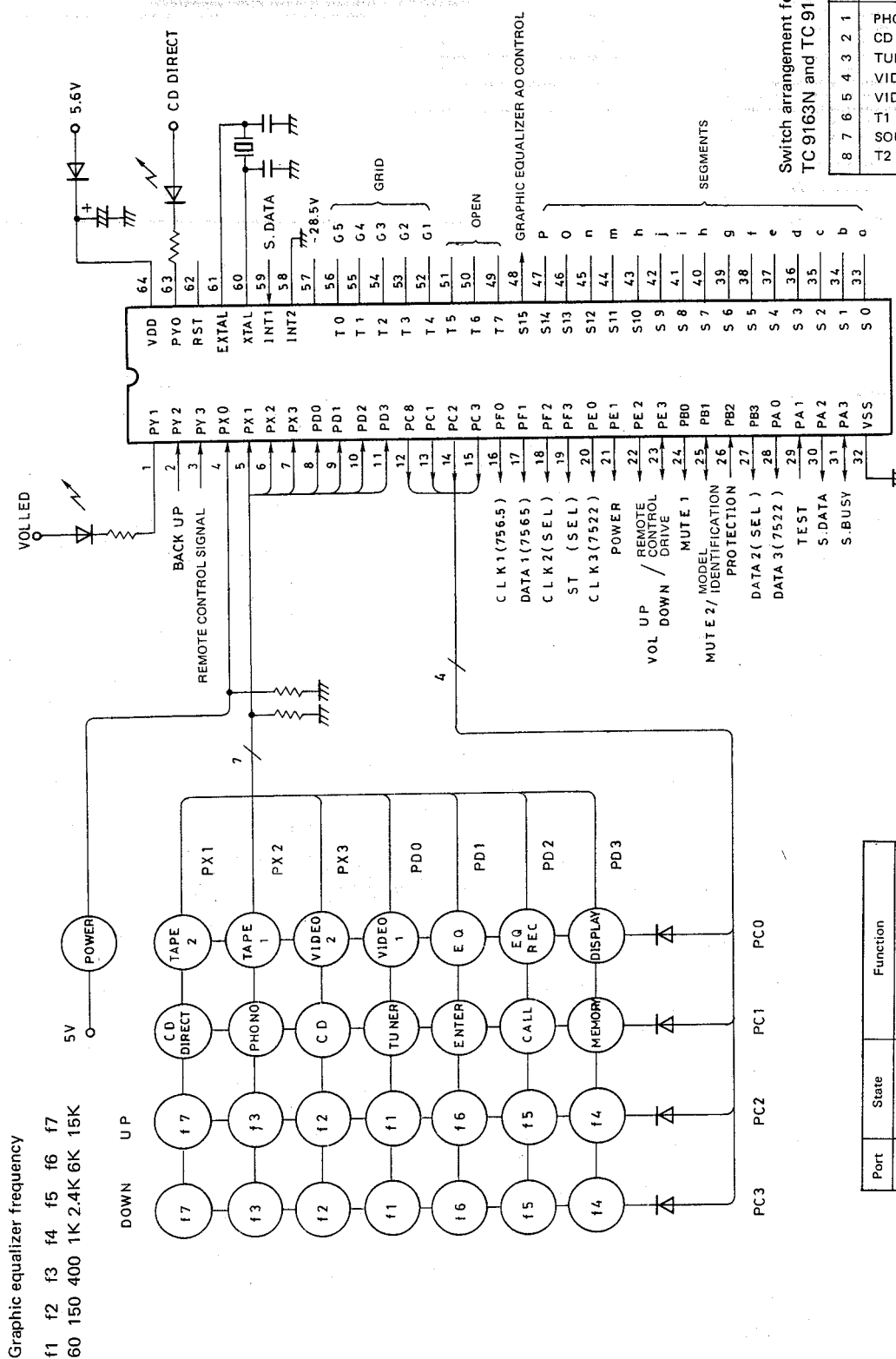
Note: For a description of the function of the microprocessor, refer to KA-127

Audio unit (X09-2590-11)

Component	Use/Function	Operation/Condition/Interchangeability
IC1, 2	Selector	Selects an input line and surtches the graphic equalizer ON and OFF
IC3	Electric Volume Control	Sets the graphic equalizer level
IC4, 5	Amplifier	Semiconductor for the graphic equalizer
IC7	Regulator	For +15V
IC6	Graphic equalizer amplifier	
IC9	Equalizer amplifier	
IC11	Preamplifier	
IC14	Buffer	
IC12, 13	Adder and active filter	Addition of L ch, R ch, and BPF for specturm analyzer
IC8	Buffer	Amplifies REC signals from TAPE1 and TAPE2
IC10	Regulator	For -15V
Q5, 6, 7	Muting	OUTPUT line muting
Q8	Muting	Spectrum analyzer signal muting
Q3	Relay drive	Outlet power supply switching

CIRCUIT DESCRIPTION

IC1 (X11-250 0-11): μ -com. CXP 5014-250S



Switch arrangement for
TC 9163N and TC 9164N

SEL. IC	TC9163N	TC9164N
1	PHONE	GE ON
2	CD	GE OFF
3	TUNER	CD DIRECT
4	VIDEO1	
5	VIDEO2	
6	T1 PLAY	
7	SOURCE	
8	T2 PLAY	T1 REC T1 GE REC

***The output port for the display tube requires pull-down for piggybacking.**

Port	State	Function
PE3	Output	VOL DOWN
	"H"	Remote control: No
	Input "L"	Remote control: Yes
PB1	Output	MUTE 2
	"H"	KC-207
	Input "L"	KA-127
PA1	Input "H"	NORM
	"L"	TEST
	Input "H"	PROTECTION
PB2	Input "L"	NORM

CIRCUIT DESCRIPTION

Pin description


Pin No.	Symbol	I/O	Description
1	PY ₁	\bar{O}	Volume control, LED control pin. Normally ON; flashing when remote control volume UP/DOWN is pressed.
2	PY ₂	I	Backup detection pin "H": Normal operation "L": Backup
3	PY ₃	I	Remote control signal input pin. Active "L".
4	PX ₀	I	Key matrix return signal input pin. Active "H"
5	PX ₁	I	
6	PX ₂	I	
7	PX ₃	I	
8	PD ₀	I	
9	PD ₁	I	
10	PD ₂	I	
11	PD ₃	I	
12	PC ₀	\bar{O}	Key matrix digit signal output pin. (Normally all "H")
13	PC ₁	\bar{O}	
14	PC ₂	\bar{O}	
15	PC ₃	\bar{O}	
16	PF ₀	\bar{O}	LC7565 clock pin (CLK1) LC7565: Graphic equalizer display IC (DATA1) LC7565 data pin Active "H"
17	PF ₁	\bar{O}	
18	PF ₂	\bar{O}	TC9163N and TC9164N clock pin (CLK ₂) TC9163N and TC9164N: Selector switching ICs Active "H"
19	PF ₃	\bar{O}	TC9163N and TC9164N strobe pin (ST) Active "H"
20	PE ₀	\bar{O}	LC7522 clock pin (CLK3) LC7522: Electronic volume control for graphic equalizer. Active "H"
21	PE ₁	\bar{O}	Power relay control pin Active "H"
22	PE ₂	\bar{O}	UP Electronic volume control pin Active "H"
23	PE ₃	$\bar{O}/1$	DOWN Electronic volume control pin *The DOWN pin also functions as a remote control identification pin
24	PB ₀	\bar{O}	MUTE1 Mute control pin (for LINE muting) Active "L"
25	PB ₁	$\bar{O}/1$	MUTE2 Mute control pin (for REC muting) Active "L"
26	PB ₂	I	PROTECTION Protection state detection pin Active "H"
27	PB ₃	\bar{O}	TC9163N and TC9164N data pin (DATA2) Active "H"
28	PA ₀	\bar{O}	LC7522 data pin (DATA3) Active "H"
29	PA ₁	I	TEST Test mode detection pin "H" Normal operation "L" Test mode *Detected when reset
30	PA ₂	I/\bar{O}	S. DATA Used for serial communication (data pin) Active "H"
31	PA ₃	I/\bar{O}	S. BUSY Used for serial communication (busy pin) Active "H"
32	V _{SS}		GND pin
33	S ₀	\bar{O}	a FL tube segment control pin Active "H" *With a pulldown resistor as a mask option (pins 33 to 66)
47	S ₁₄	\bar{O}	
48	S ₁₅	\bar{O}	-30V control pin for KC-207 A ϕ pin control pin for graphic equalizer display in the FL tube for (KA-127). Active "H"
49	T7	\bar{O}	Not used
51	T5	\bar{O}	
52	T4	\bar{O}	G1 Grid control pin for FL tube Active "H"
56	T0		G2
57	V _{FDP}		FL tube drive power pin (-30V)
58	INT ₂	I	Unused interrupt pin
59	INT ₁	I	Receive interrupt pin for serial communication
60	X _{IAL}		System clock generation pin 4.19 MHz
61	EXTAL		
62	RST	I	Reset input pin "L" reset
63	PY ϕ	\bar{O} (n, d)	CD DIRECT LED control pin *Used for KC-207 only
64	V _{OD}		5V power pin for microprocessor *Keep the potential with a super capacitor, etc, for backup.

CIRCUIT DESCRIPTION

1. Test mode

When pin 29 of the microprocessor is pulled LOW (grounded) by connecting it to an outlet (reset), test mode is entered.

(a) All-segments-ON mode

All the segments except those of the graphic equalizer and the  in figure 1 come on. When this happens, the graphic equalizer key is inhibited and the SELECTOR key can be operated, but the display remains unchanged. Pressing the Power key once cancels the all-segments-ON mode.

(b) Graphic equalizer test mode

The state of the graphic equalizer can be switched between MAX and MIN by pressing the UP/DOWN key once.

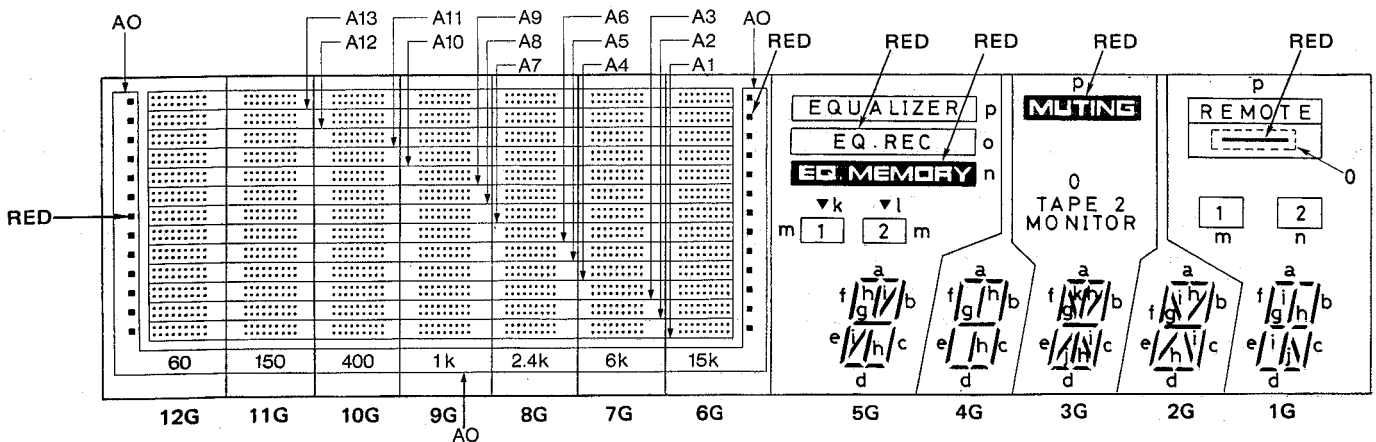
MAX \rightleftharpoons FLAT \rightleftharpoons MIN

(c) Cancel

Test modes a and b are set to their initial states (SEL, TUNER, and graphic equalizer memory all flat) when pin 29 of the microprocessor is disconnected.

Internal connector (grid and segment layout/color specification)

Fig. 1



2. Protection function (except KC-207)

Pin 26 of the microprocessor goes high (5V) to indicate the protection state (abnormal operation).

(a) Protection state setting conditions

The state of the protection IC of the main amplifier is always monitored. When the protection IC enters the protection state, a high signal (5V) is input to the microprocessor. The microprocessor allows about 400ms chattering time (to prevent malfunction) and then enters the protection state.

(b) Protection indication

"P-OFF" flashes on the character display (selector display) of the fluorescent tube.

(c) Canceling the state

- When in the protection state, all keys except the POWER key are disabled.
- When the protection IC enters the protection state because of a momentary voltage drop or power failure and recovers from it automatically, the protection display automatically returns to the normal selector display.

(d) The microprocessor does not monitor the protection IC state for 5 seconds after the power is switched ON.

3. Model Identification (KC-207 [Preamplifier]/KA-127 [Pre-main amplifier])

- When the signal on pin 25 of the microprocessor is high, the model is identified as a KC-207 (preamplifier). When the signal is low, the model is identified as a KA-127 (Pre-main amplifier).
- Separate program processing is performed when the power is switched ON and OFF.
- Pin 48 (S15) of the KC-207 (preamplifier) controls the FL tube drive power supply (-30V) when the power is switched ON, S15 is pulled high when the display lights.

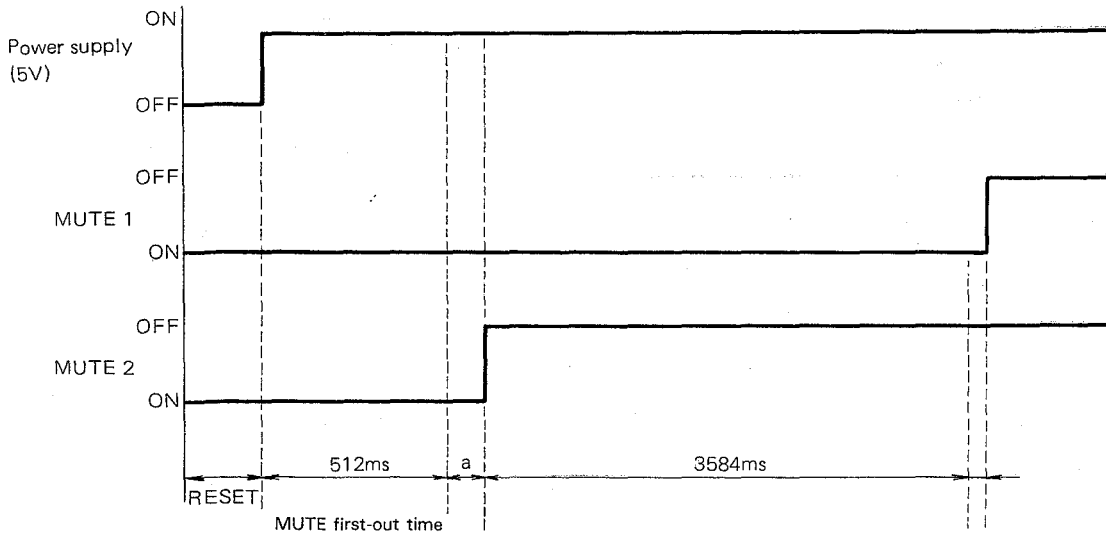
CIRCUIT DESCRIPTION

Mute timing

PB0 (MUTE 1) and PB1 (MUTE 2) are used as MUTE pins. When they are low, MUTE is ON.

Note: PB1 (MUTE2) is used for the preamplifier (KC-207).

1. When the power is switched ON (initially, SEL, TUNER).

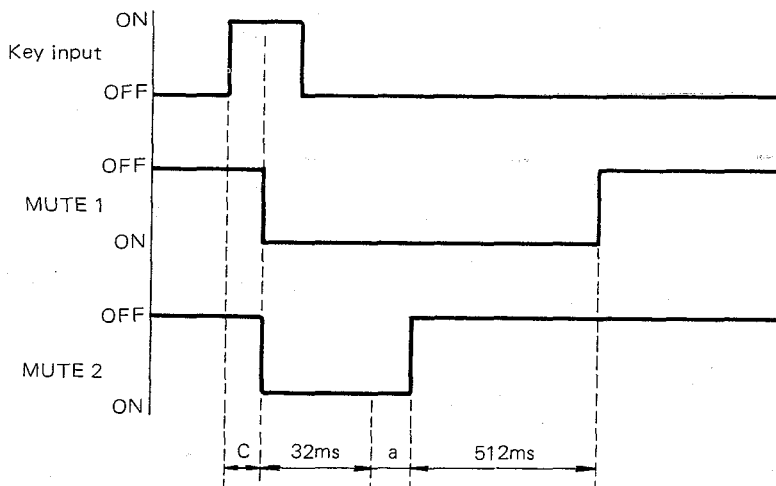


a: Selector IC data transfer (selector switching)
Graphic equalizer IC (7522) data transfer
Graphic equalizer display IC (7565) data transfer.
FL tube selector display data creation. } about 50 ms

b: Selector IC data transfer (SW ON for the selector state)

Note: When the power is switched ON, the selector IC data is given by "a"; SW ALL OPEN (open all switches) data is transferred.

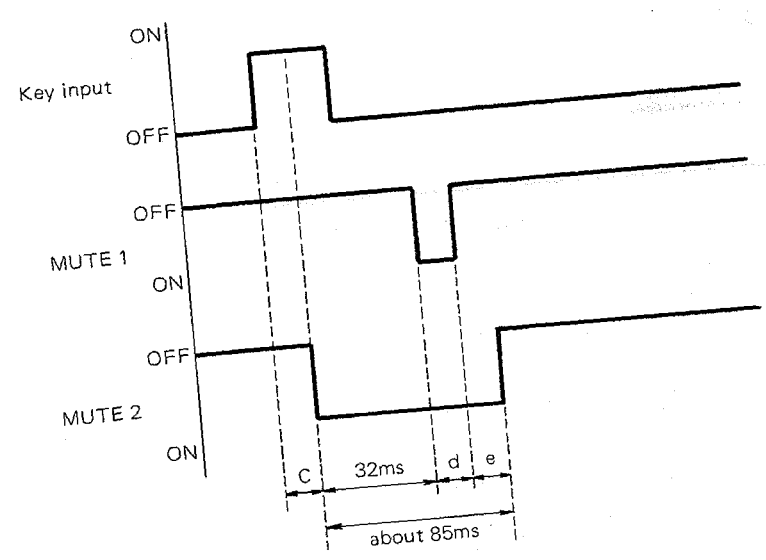
2. Selector switching (TAPE 2 OFF)



C: Chattering time (about 20ms).

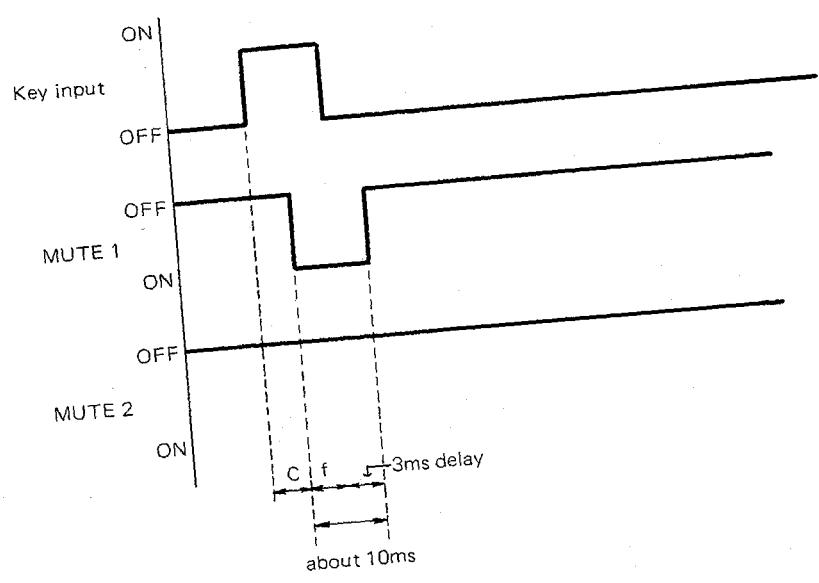
CIRCUIT DESCRIPTION

3. Selector switching (TAPE 2 ON)



- d: Selector switching (about 10ms)
- e: Graphic equalizer IC (7522) data transfer Graphic equalizer display IC (7565) data transfer Fluorescent tube selector display

4. Selector switching (GE ON/OFF, GE, REC ON/OFF, TAPE 2 ON/OFF)



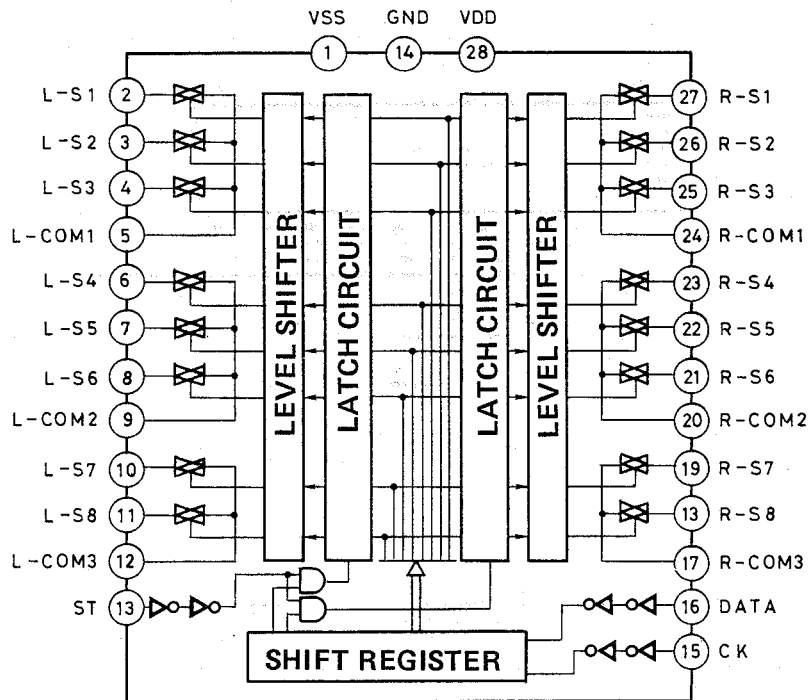
- f: Selector switching
Fluorescent tube selector display + state display

The diagram illustrates a digital-to-analog converter circuit. The LC 7522, represented by a dashed box, is a 4-bit DAC. It receives a clock signal (CLK) at pin 17 and data from a microprocessor (From μ -COM) at pin 16. The DAC has four data outputs (pins 19, 20, 21, 22) labeled f_1 , f_2 , f_3 , and f_4 . Each output is connected to an input of an M5229P op-amp buffer. The first buffer (pins 16, 17, 18) has its non-inverting input (pin 16) connected to f_1 and its inverting input (pin 17) connected to ground. The second buffer (pins 13, 14, 15) has its non-inverting input (pin 13) connected to f_1 and its inverting input (pin 14) connected to ground. The output of the first buffer is connected to the output of the second buffer through a resistor R_1 and a capacitor C_1 . The output of the second buffer is connected to the output of the first buffer through a resistor R_2 and a capacitor C_2 . The final output is taken from the output of the first buffer, which is connected to the output of the second buffer through a resistor R_2 and a capacitor C_2 . The formula for the output frequency is given as:

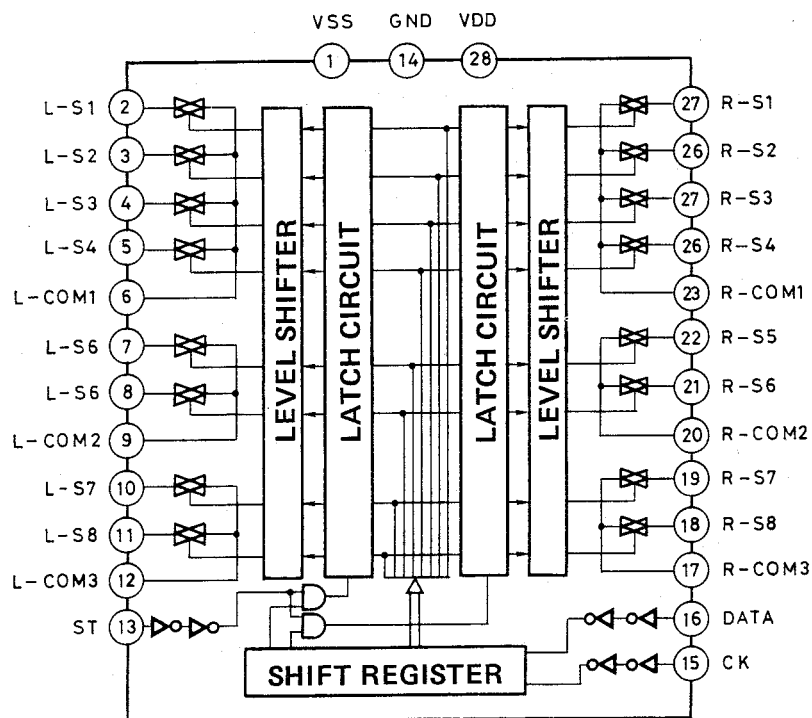
$$f_o = \frac{1}{2\pi\sqrt{C_1 C_2 R_1 R_2}}$$

CIRCUIT DESCRIPTION

IC1 (X09-2590-11) TC9163N

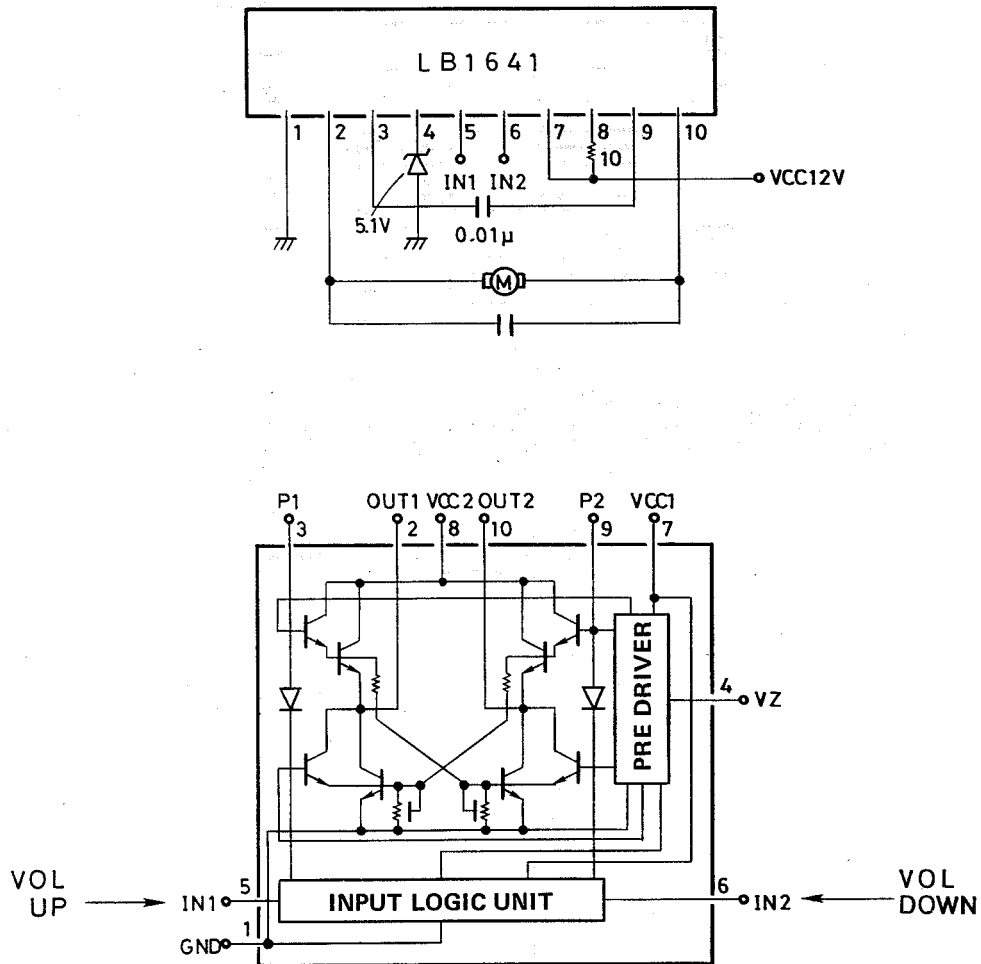


IC2 (X09-2590-11) TC9164N



CIRCUIT DESCRIPTION

IC4 (X11-2500-11) Pin connection LB1641 or BA6109



Audio unit
(X09-2590-XX)

IC1	IC9
1 -15V	1 0V
28 15V	4 -15V
	7 0V
	8 15V

IC2	IC10
1 -15V	2 -20V
28 15V	3 -15V

IC3	IC11
1 7V	1 0V
11 -7V	4 -15V
12 -7V	7 0V
13 -7V	8 15V
14 -7V	
15 5V	

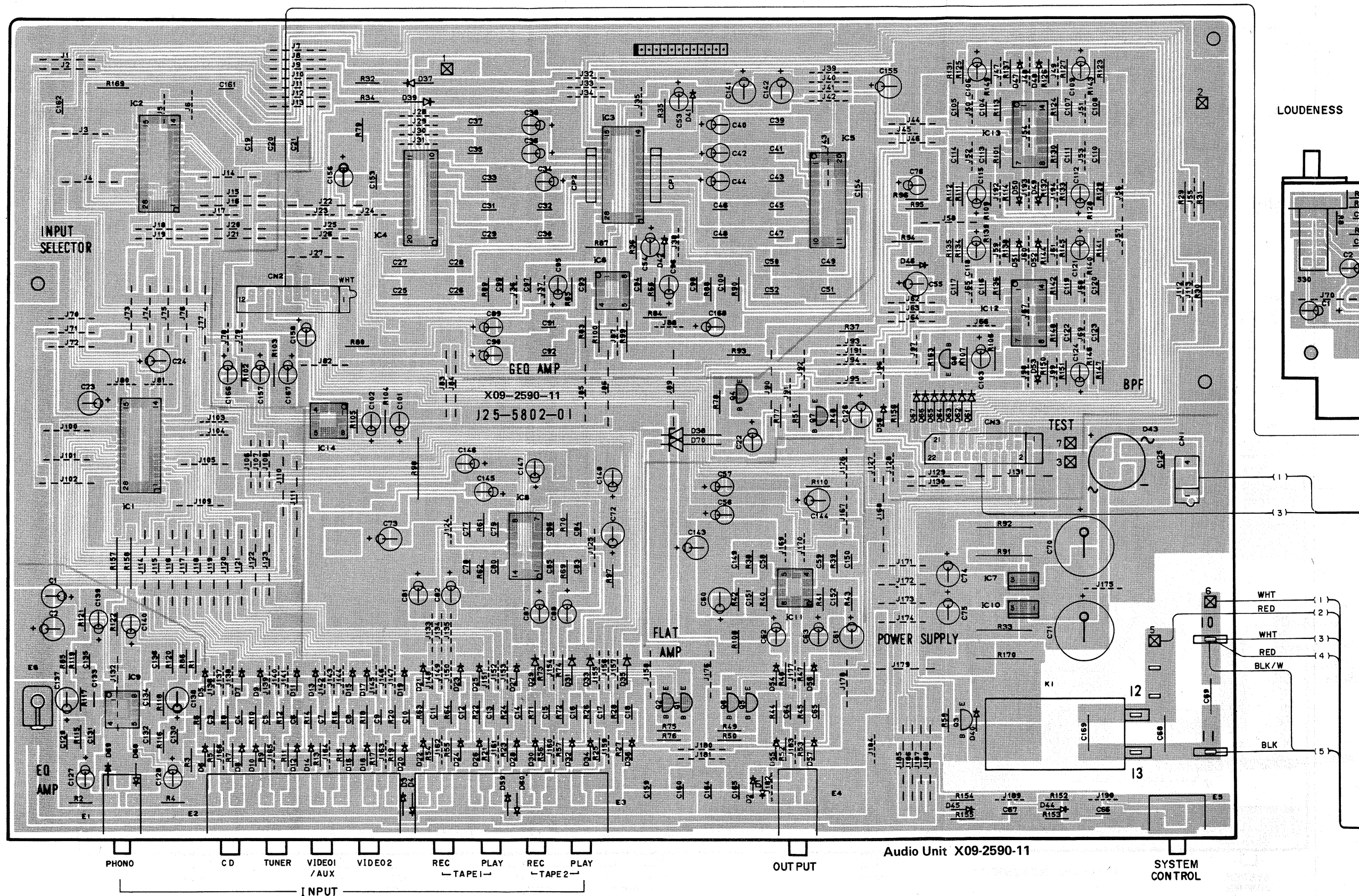
IC4	IC12
18 15V	4 15V
20 -15V	8 0V
	11 -15V

IC5	IC13
18 15V	4 15V
20 -15V	8 0V
	11 -15V

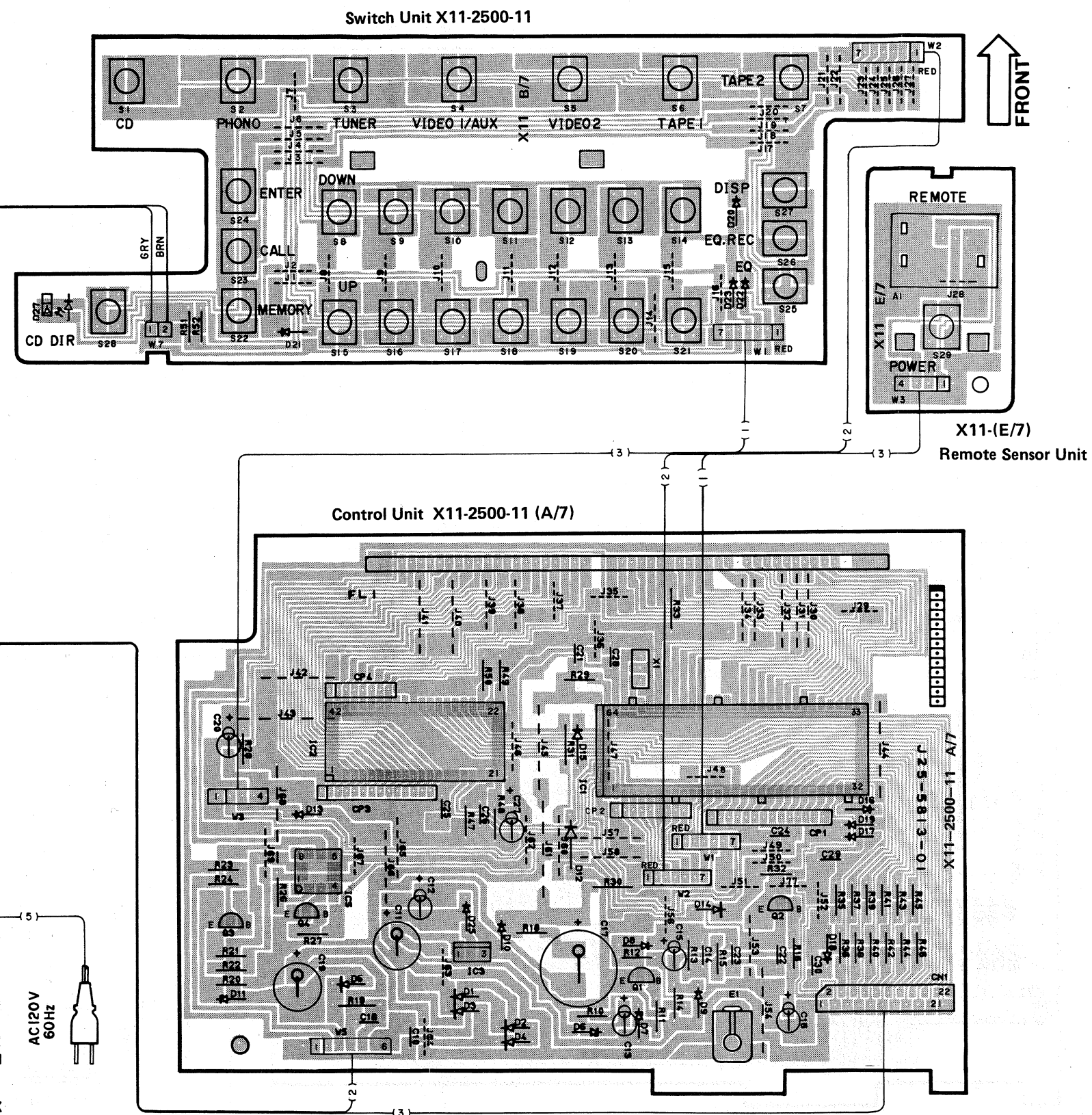
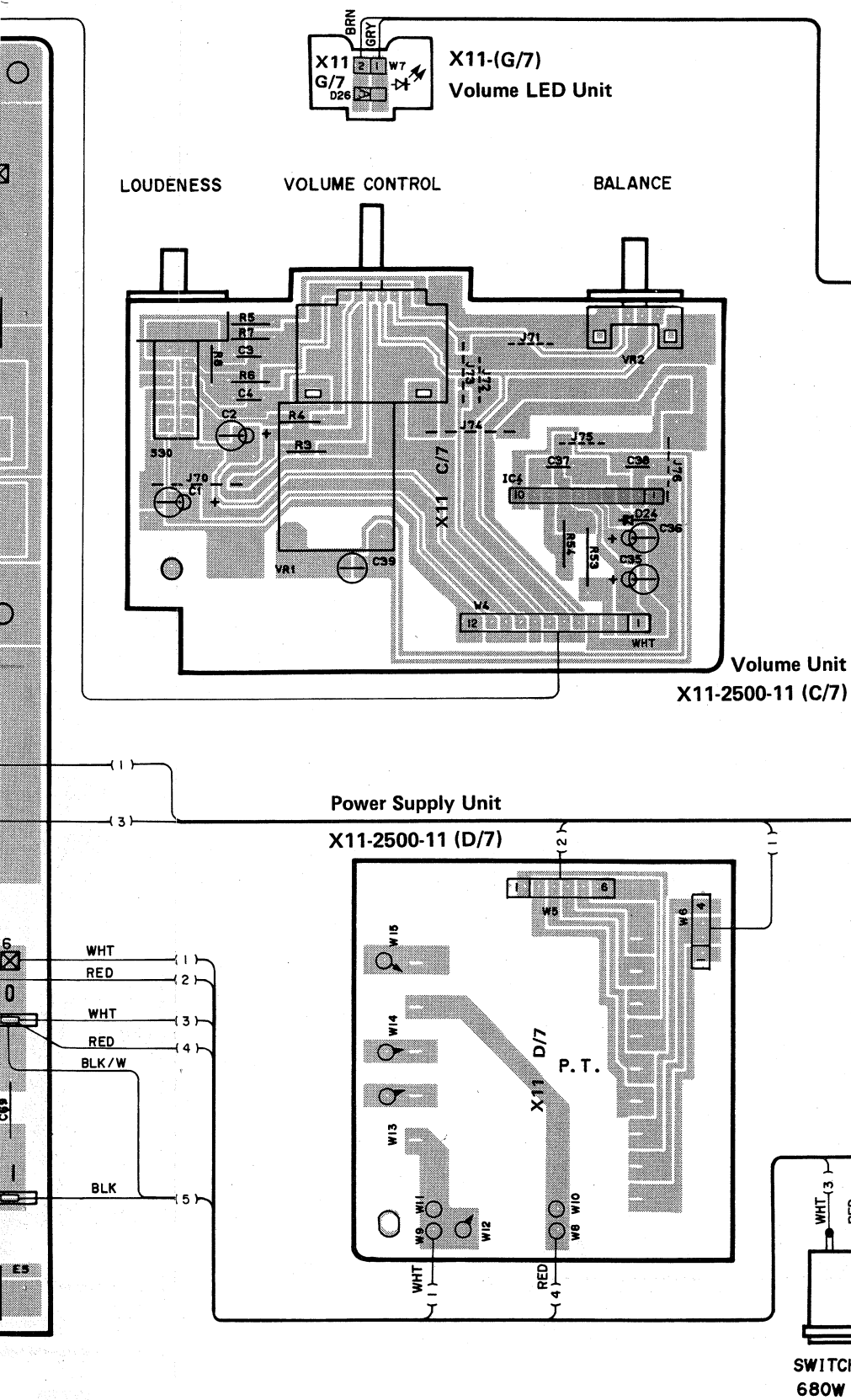
IC6	IC14
1 0V	1 0V
4 -15V	4 -15V
7 0V	7 0V
8 15V	8 15V

IC7	Q7
1 21V	E 5V
3 15V	C -
	B -

IC8
1 0V
4 15V
7 0V
8 0V
11 -15V
14 0V



D (component side view)



Control unit
(X11-2500-XX)

1,2	5V
57	-31V
64	5V

IC2	
42	5V

IC3	
1	10.9V
3	5.7V

IC4	
4	5.1V
7	12V
8	12V

5	-25V
6	-25V

E	5.7V
C	5V
B	—

Q3

E	-31V
C	-25V
B	—

PC BOARD (foil side)

Audio unit (X09-2590-XX)

IC1	
1	-15V
28	15V

IC2	
1	-15V
28	15V

IC3	
1	7V
11	-7V
12	-7V
13	-7V
14	-7V
15	5V

IC4	
18	15V
20	-15V

IC5	
18	15V
20	-15V

IC6	
1	0V
4	-15V
7	0V
8	15V

IC7	
1	21V
3	15V

IC8	
1	0V
4	15V
7	0V
8	0V
11	-15V
14	0V

IC9	
1	0V
4	-15V
7	0V
8	15V

IC10	
2	-20V
3	-15V

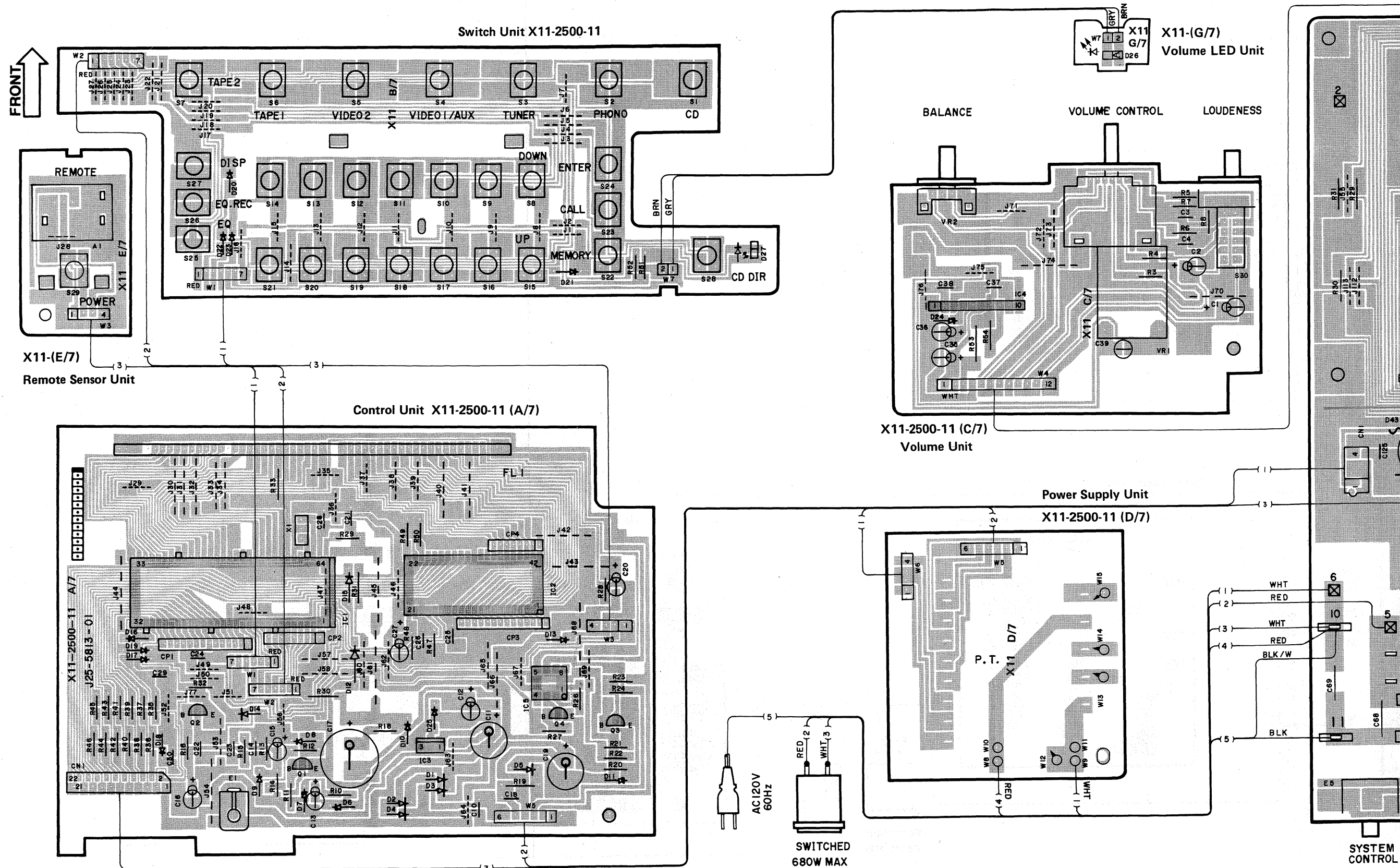
IC11	
1	0V
4	-15V
7	0V
8	15V

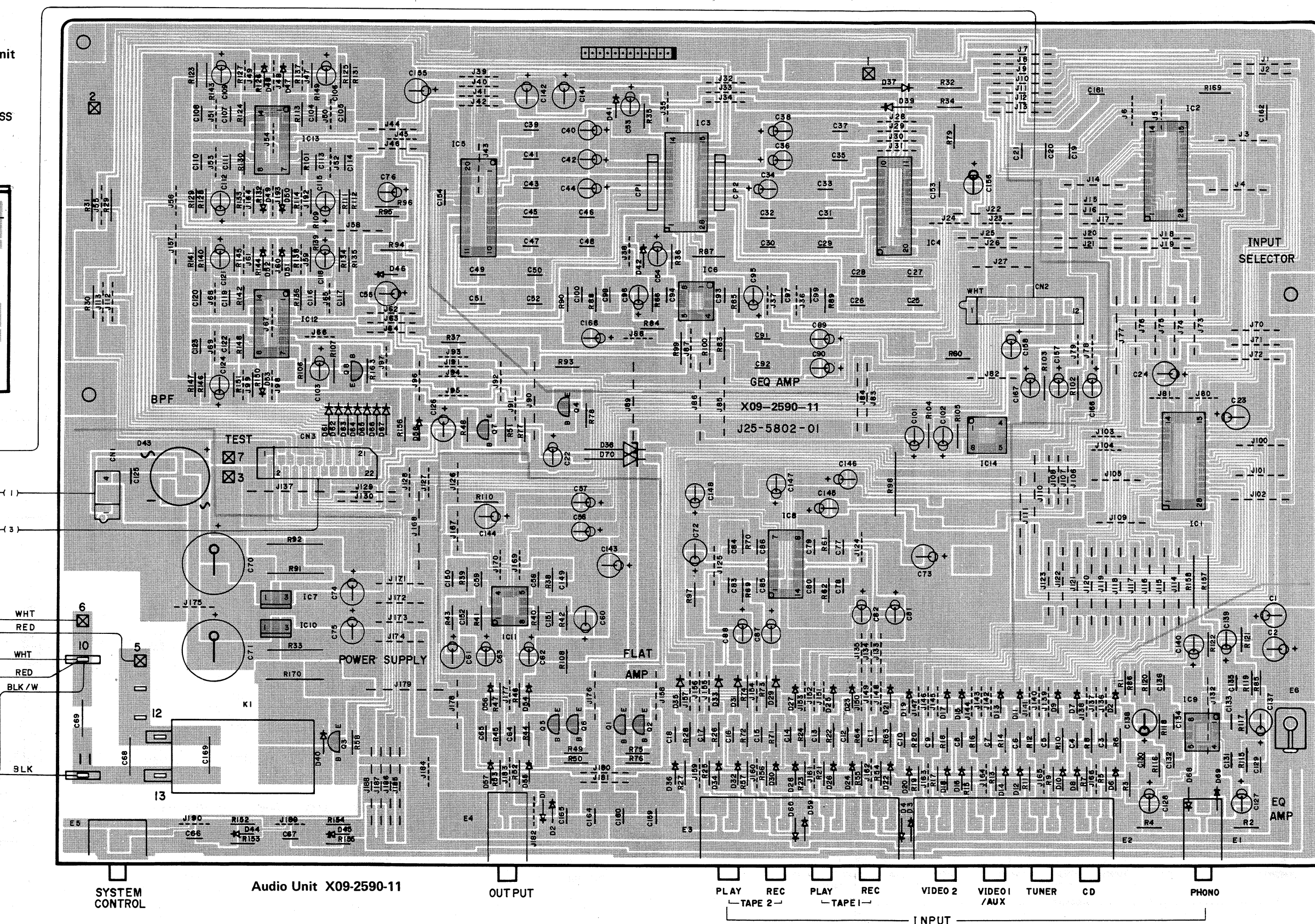
IC12	
4	15V
8	0V
11	-15V

IC13	
4	15V
8	0V
11	-15V

IC14	
1	0V
4	-15V
7	0V
8	15V

Q7	
E	5V
C	-
B	-





Control unit
(X11-2500-XX)

IC1	
1,2	5V
57	-31V
64	5V

IC2	
42	5V

IC3	
1	10.9V
3	5.7V

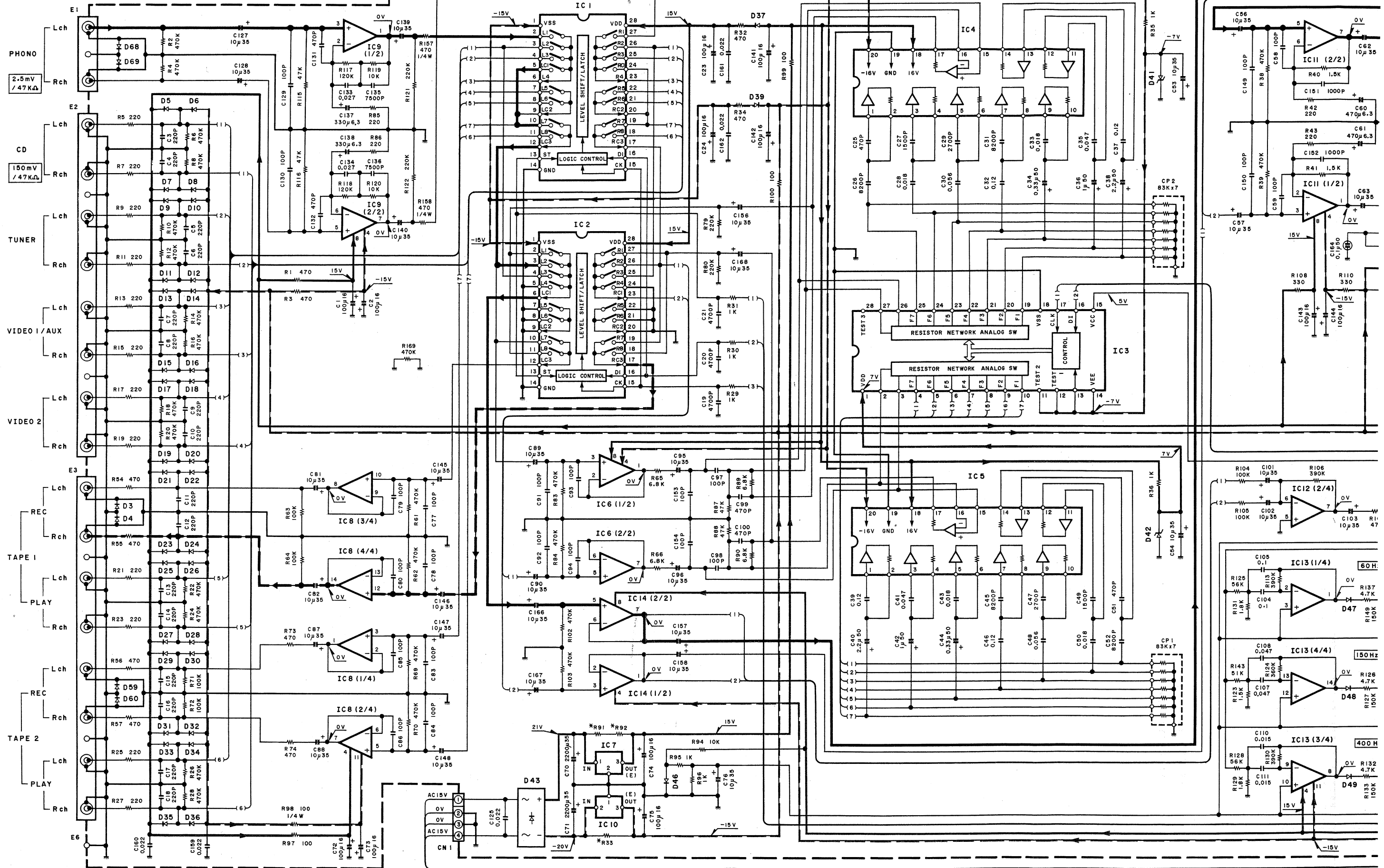
IC4	
4	5.1V
7	12V
8	12V

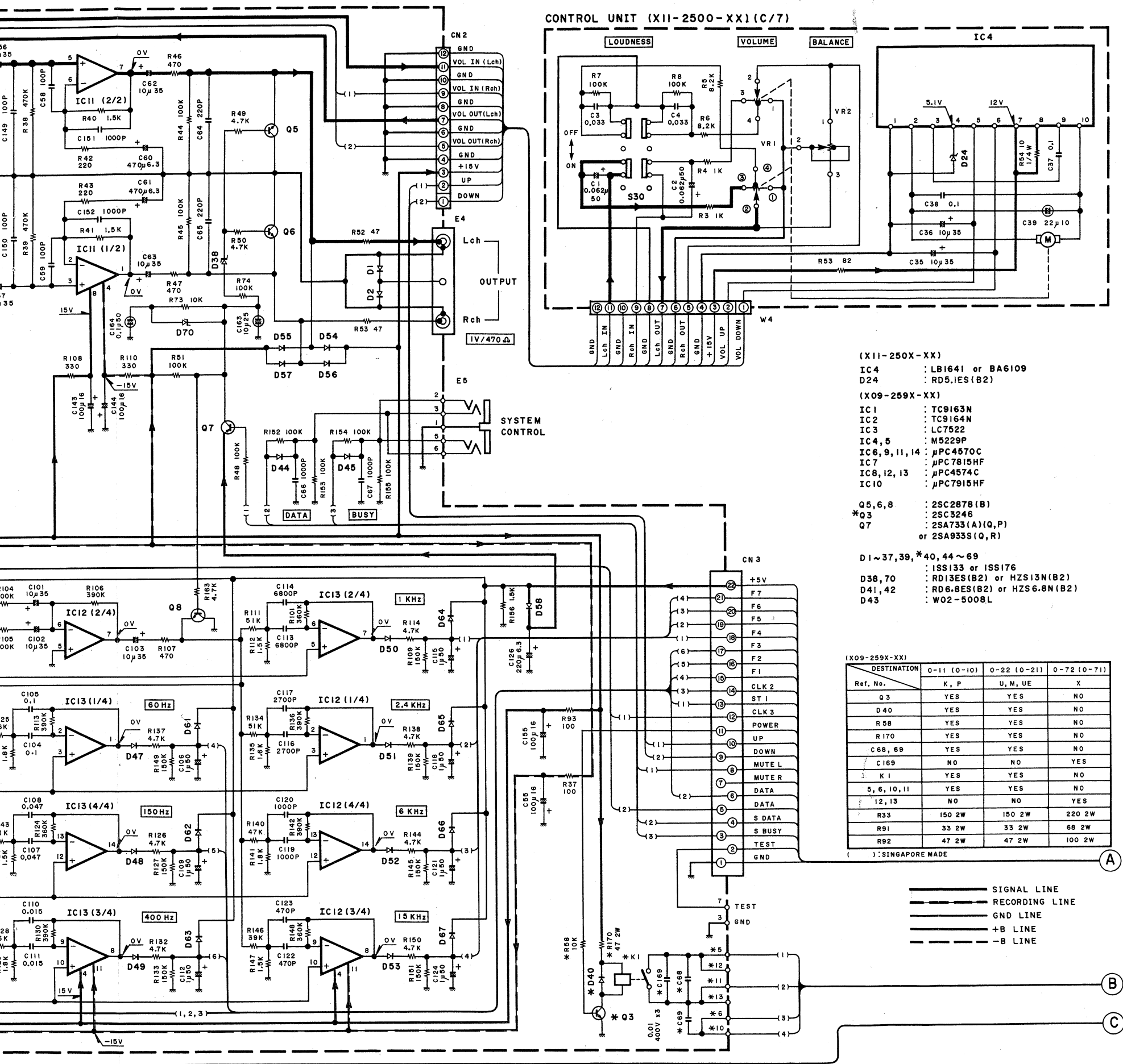
IC5	
5	-25V
6	-25V

Q1	
E	5.7V
C	5V
B	—

Q3	
E	-31V
C	-25V
B	—

AUDIO AMPLIFIER UNIT (X09-2590-XX)





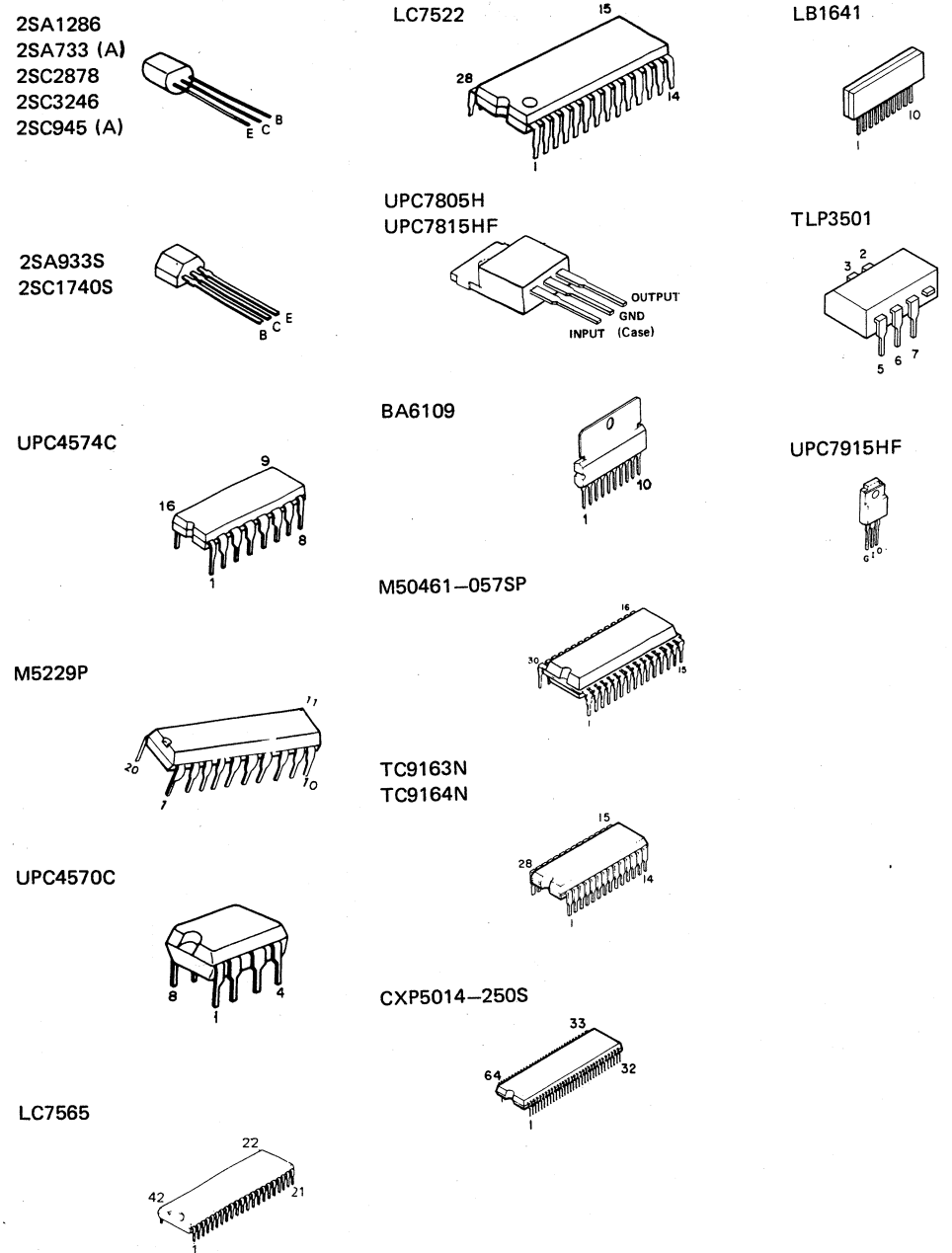
- (X11-250X-XX)
 IC4 : LB1641 or BA6109
 D24 : RD5.1ES (B2)
- (X09-259X-XX)
 IC1 : TC9163N
 IC2 : TC9164N
 IC3 : LC7522
 IC4, 5 : M5229P
 IC6, 9, 11, 14 : μ PC4570C
 IC7 : μ PC7815HF
 IC8, 12, 13 : μ PC4574C
 IC10 : μ PC7915HF
- Q5, 6, 8 : 2SC2878 (B)
 *Q3 : 2SC3246
 Q7 : 2SA733 (A) (Q, P)
 or 2SA933S (Q, R)
- D1 ~ 37, 39, *40, 44 ~ 69 : ISS133 or ISS176
 D38, 70 : RD13ES (B2) or HZS13N (B2)
 D41, 42 : RD6.8ES (B2) or HZS6.8N (B2)
 D43 : W02-5008L

(X09-259X-XX)

DESTINATION	0-11 (0-10)	0-22 (0-21)	0-72 (0-71)
Ref. No.	K, P	U, M, UE	X
Q3	YES	YES	NO
D40	YES	YES	NO
R58	YES	YES	NO
R170	YES	YES	NO
C68, 69	YES	YES	NO
C169	NO	NO	YES
K1	YES	YES	NO
5, 6, 10, 11	YES	YES	NO
12, 13	NO	NO	YES
R33	150 2W	150 2W	220 2W
R91	33 2W	33 2W	68 2W
R92	47 2W	47 2W	100 2W

(SINGAPORE MADE)

— SIGNAL LINE
 — RECORDING LINE
 — GND LINE
 — +B LINE
 — -B LINE



DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

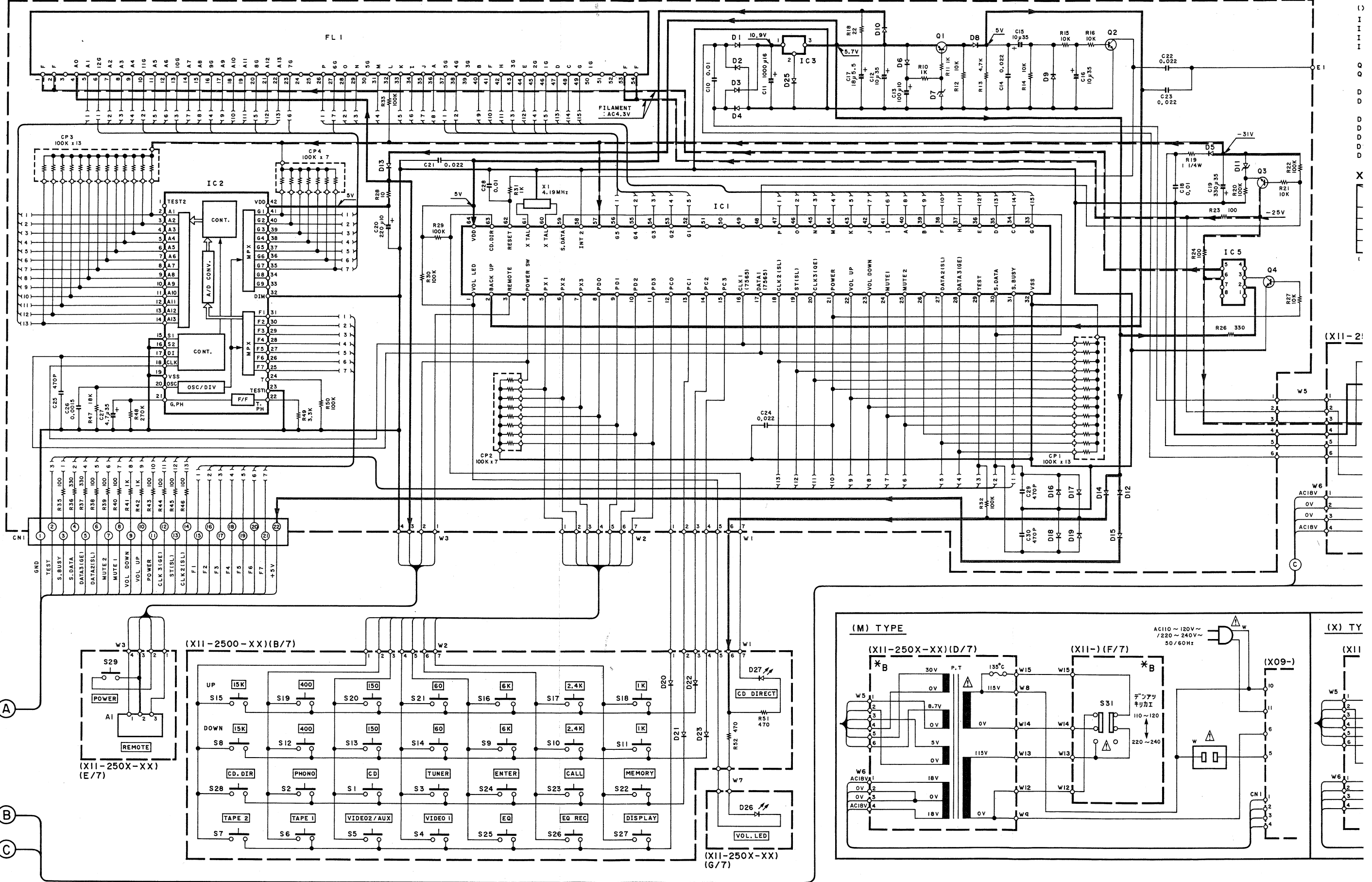
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanden die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

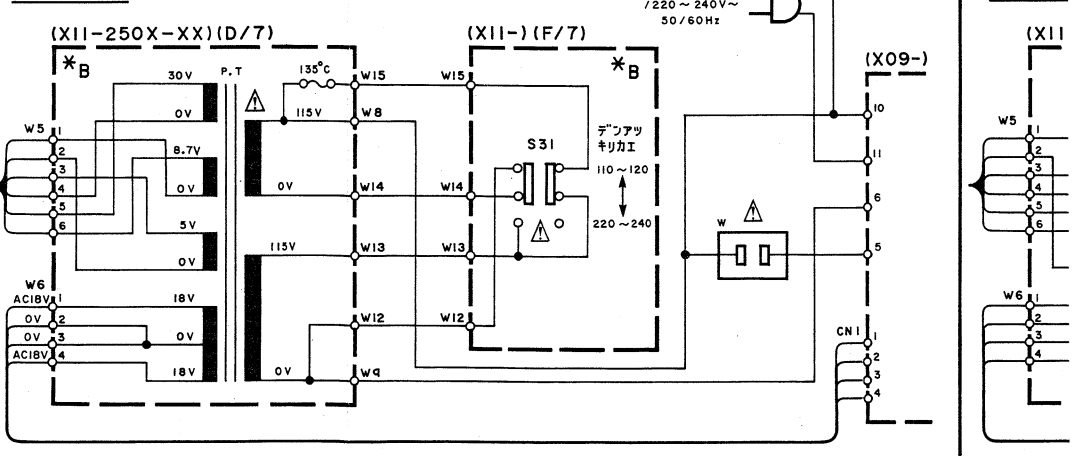
CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KC-207
KENWOOD

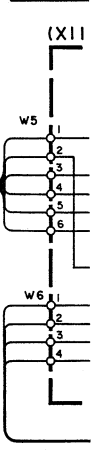
(X11-2500-XX)(A/7)

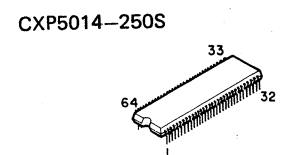
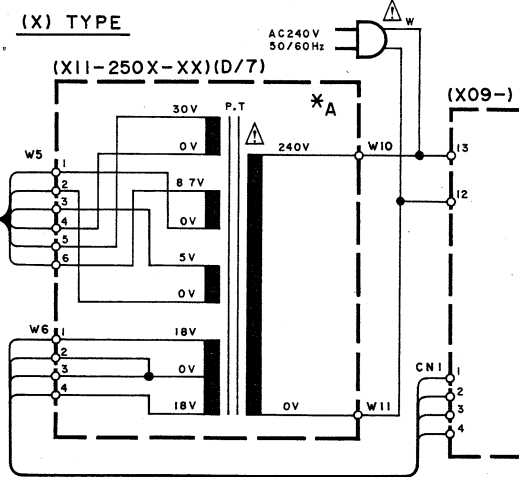
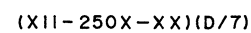


(M) TYPE



(X) TY

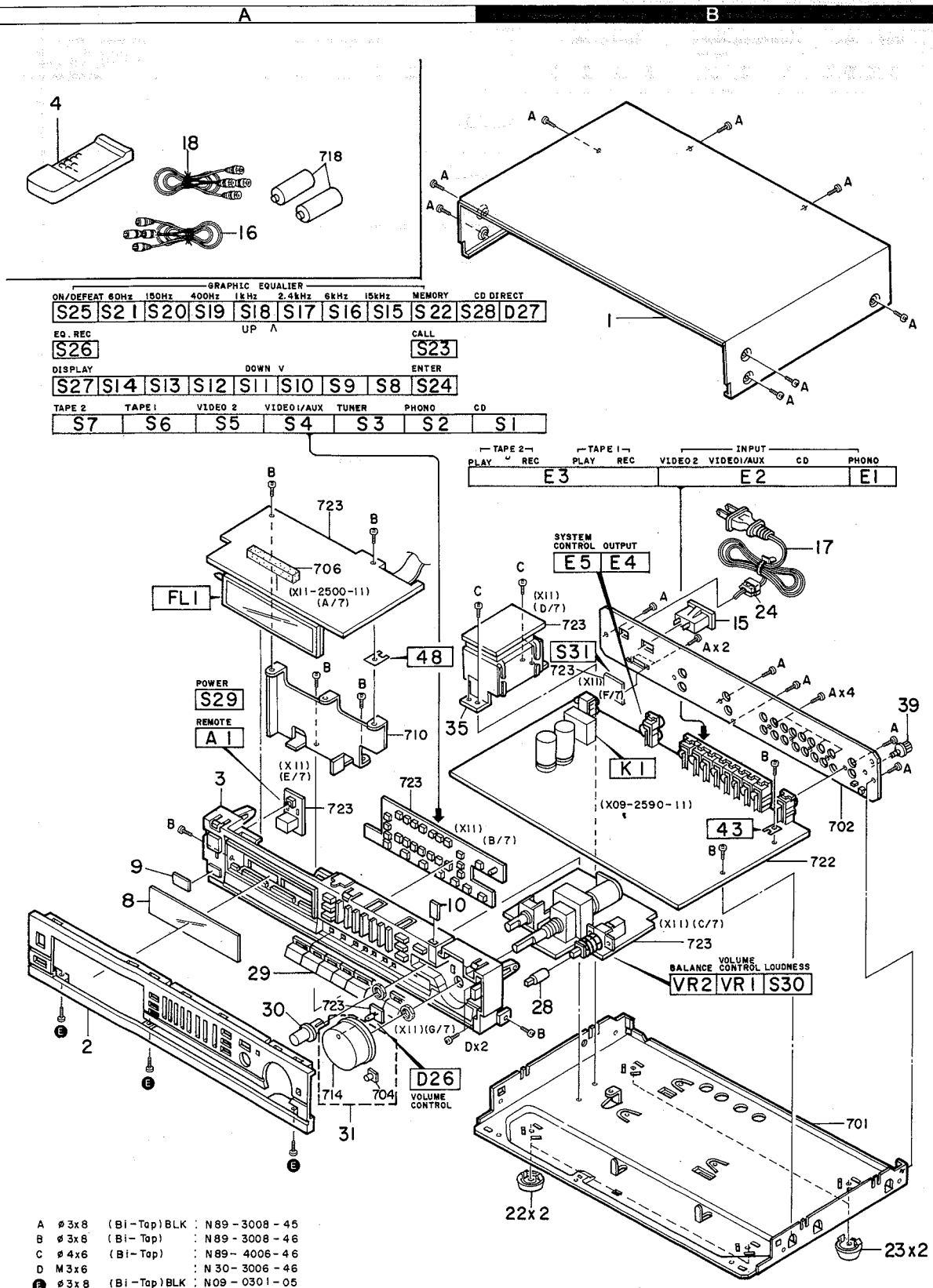




CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KC-207
KENWOOD

EXPLODED VIEW



KC-207

PARTS LIST

× New Parts

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Telle ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
KC-207						
1	1B		A01-1549-01	METALLIC CABINET		
2	3A	*	A20-5472-02	PANEL		
3	2A	*	A22-0959-01	SUB PANEL		
4	1A	*	A70-0206-05	REMOTE CONTROLLER ASSY	KUUE	
4	1A	*	A70-0207-05	REMOTE CONTROLLER ASSY	PM	
4	1A	*	A70-0208-05	REMOTE CONTROLLER ASSY	X	
8	2A	*	B03-2416-04	DRESSING PLATE (DISPLAY)		
9	2A	*	B03-2417-04	DRESSING PLATE (REMOTE)		
10	2A	*	B03-2418-04	DRESSING PLATE (CD DIRECT)		
-			B46-0092-03	WARRANTY CARD	K	
-			B46-0094-03	WARRANTY CARD	UUE	
-			B46-0095-03	WARRANTY CARD	UUE	
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0121-03	WARRANTY CARD	P	
-		*	B50-8707-00	INSTRUCTION MANUAL (ENGLISH)		
-		*	B50-8708-00	INSTRUCTION MANUAL (FRENCH)	PMX	
-		*	B50-8709-00	INSTRUCTION MANUAL (FRENCH)	M	
-		*	B50-8710-00	INSTRUCTION MANUAL (ARABIC)	M	
-			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
-			B58-0513-04	CAUTION CARD (PRESET 220-240)	UE	
-			B59-0092-00	SERVICE DIRECTORY	UUE	
△ 15	2B		E03-0041-05	AC OUTLET	KPUUEM	
△ 16	1A		E30-0505-05	AUDIO CORD		
△ 17	2B		E30-0812-05	AC POWER CORD	UUEM	
△ 17	2B		E30-0996-05	AC POWER CORD	KP	
△ 17	2B		E30-1341-05	AC POWER CORD	X	
18	1A		E30-1392-05	CORD WITH PLUG		
-		*	H01-7763-04	ITEM CARTON CASE		
-		*	H10-3629-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-3630-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0148-04	PROTECTION BAG (110X230X0.07)		
-			H25-0223-04	PROTECTION BAG (750X350X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
22	3B	*	J02-0366-15	FOOT		
23	3B	*	J02-0370-05	FOOT (H=9.5)		
24	2B		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
28	3B	*	K27-1853-04	KNOB (BUTTON) LOUDNESS		
29	3A	*	K27-1854-03	KNOB (BUTTON) TAPE, TUNER, CD		
30	3A		K29-2736-04	KNOB (BALANCE)		
31	3A		K29-2767-04	KNOB ASSY (VOLUME CONTROL)		
35	2A	*	L01-5071-05	POWER TRANSFORMER	KP	
35	2A	*	L01-5072-05	POWER TRANSFORMER	X	
35	2A	*	L01-5074-05	POWER TRANSFORMER	UUEM	
39	2B		N08-0128-35	BINDING POST (GND)		
E	3A		N09-0301-05	TAPTITE SCREW (φ3X8) PANEL		
-			M50461-057SP	IC (REMOTE CONTROLLER)		
KC-207 (SINGAPORE MADE)						
1	1B		A01-1549-01	METALLIC CABINET		

E: Scandinavia & Europe K: USA

P: Canada

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PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
2	3A	*	A20-5472-02	PANEL		
3	2A	*	A22-0959-01	SUB PANEL		
4	1A	*	A70-0206-05	REMOTE CONTROLLER ASSY	KUUE	
4	1A	*	A70-0207-05	REMOTE CONTROLLER ASSY	PM	
4	1A	*	A70-0208-05	REMOTE CONTROLLER ASSY	X	
8	2A	*	B03-2416-04	DRESSING PLATE (DISPLAY)		
9	2A	*	B03-2417-04	DRESSING PLATE (REMOTE)		
10	2A	*	B03-2418-04	DRESSING PLATE (CD DIRECT)		
--			B46-0092-03	WARRANTY CARD	K	
--			B46-0094-03	WARRANTY CARD	UUE	
--			B46-0095-03	WARRANTY CARD	UUE	
--			B46-0096-13	WARRANTY CARD	X	
--			B46-0121-03	WARRANTY CARD	P	
--		*	B50-8905-00	INSTRUCTION MANUAL (ENGLISH)		
--		*	B50-8906-00	INSTRUCTION MANUAL (FRENCH)	PMX	
--		*	B50-8907-00	INSTRUCTION MANUAL (SPANISH)	M	
--		*	B50-8908-00	INSTRUCTION MANUAL (ARABIC)	M	
--			B58-0223-04	CAUTION CARD (PRE-SET 120V)	U	
--			B58-0513-04	CAUTION CARD (PRESET 220-240)	UUE	
--			B59-0092-00	SERVICE DIRECTORY	UUE	
△ 15	2B		E03-0041-05	AC OUTLET	KPUUEM	
△ 16	1A		E30-0505-05	AUDIO CORD		
△ 17	2B		E30-0812-05	AC POWER CORD	UUEM	
△ 17	2B		E30-0996-05	AC POWER CORD	KP	
△ 17	2B		E30-1341-05	AC POWER CORD	X	
18	1A		E30-1392-05	CORD WITH PLUG		
--		*	H01-7857-04	ITEM CARTON CASE		
--		*	H10-3631-02	POLYSTYRENE FOAMED FIXTURE		
--		*	H10-3632-02	POLYSTYRENE FOAMED FIXTURE		
--			H25-0148-04	PROTECTION BAG (110X230X0.07)		
--			H25-0223-04	PROTECTION BAG (750X350X0.03)		
--			H25-0232-04	PROTECTION BAG (235X350X0.03)		
22	3B	*	J02-0366-15	FOOT		
23	3B		J02-0370-05	FOOT (H=9.5)		
24	2B		J42-0083-05	POWER CORD BUSHING		
--			J61-0307-05	WIRE BAND		
28	3B	*	K27-1853-04	KNOB (BUTTON) LOUDNESS		
29	3A	*	K27-1854-03	KNOB (BUTTON) TAPE, TUNER, CD		
30	3A		K29-2736-04	KNOB		
31	3A		K29-2767-04	KNOB ASSY (VOLUME CONTROL)		
35	2A	*	L01-5071-05	POWER TRANSFORMER	KP	
35	2A	*	L01-5072-05	POWER TRANSFORMER	X	
35	2A	*	L01-5074-05	POWER TRANSFORMER	UUEM	
39	2B		N08-0128-35	BINDING POST (GND)		
E	3A		N09-0301-05	TAPTITE SCREW (Ø3X8) PANEL		
--			M50461-057SP	IC (REMOTE CONTROLLER)		
AUDIO UNIT (X09-2590-11)						
C1 ,2			CE04KW1C101M	ELECTRO 100UF 16WV		J
C1 ,2			CE04LW1C101M	ELECTRO 100UF 16WV		S
C3 -18			CC45FSL1H221J	CERAMIC 220PF J		
C19 -22			CK45FF1H472Z	CERAMIC 4700PF Z		
C23 ,24			CE04KW1C101M	ELECTRO 100UF 16WV		J

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C23 ,24			CE04LW1C101M	ELECTR0 100UF 16WV		S
C25			CK45FB1H471K	CERAMIC 470PF K		
C26			CF92FV1H822J	MF 8200PF J		
C27			CF92FV1H152J	MF 1500PF J		
C28			CF92FV1H183J	MF 0.018UF J		
C29			CF92FV1H272J	MF 2700PF J		
C30			CF92FV1H563J	MF 0.056UF J		
C31			CF92FV1H822J	MF 8200PF J		
C32			CF92FV1H124J	MF 0.12UF J		
C33			CF92FV1H183J	MF 0.018UF J		
C34			CE04KW1HR33M	ELECTR0 0.33UF 50WV		J
C34			CE04LW1HR33M	ELECTR0 0.33UF 50WV		S
C35			CF92FV1H473J	MF 0.047UF J		
C36			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C36			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C37			CF92FV1H124J	MF 0.12UF J		
C38			CE04KW1H2R2M	ELECTR0 2.2UF 50WV		J
C38			CE04LW1H2R2M	ELECTR0 2.2UF 50WV		S
C39			CF92FV1H124J	MF 0.12UF J		
C40			CE04KW1H2R2M	ELECTR0 2.2UF 50WV		J
C40			CE04LW1H2R2M	ELECTR0 2.2UF 50WV		S
C41			CF92FV1H473J	MF 0.047UF J		
C42			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C42			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C43			CF92FV1H183J	MF 0.018UF J		
C44			CE04KW1HR33M	ELECTR0 0.33UF 50WV		J
C44			CE04LW1HR33M	ELECTR0 0.33UF 50WV		S
C45			CF92FV1H822J	MF 8200PF J		
C46			CF92FV1H124J	MF 0.12UF J		
C47			CF92FV1H272J	MF 2700PF J		
C48			CF92FV1H563J	MF 0.056UF J		
C49			CF92FV1H152J	MF 1500PF J		
C50			CF92FV1H183J	MF 0.018UF J		
C51			CK45FB1H471K	CERAMIC 470PF K		
C52			CF92FV1H822J	MF 8200PF J		
C53 ,54			CE04KW1V100M	ELECTR0 10UF 35WV		J
C53 ,54			CE04LW1V100M	ELECTR0 10UF 35WV		S
C55			CE04KW1C101M	ELECTR0 100UF 16WV		J
C55			CE04LW1C101M	ELECTR0 100UF 16WV		S
C56 ,57			CE04KW1V100M	ELECTR0 10UF 35WV		J
C56 ,57			CE04LW1V100M	ELECTR0 10UF 35WV		S
C58 ,59			CC45FSL1H101J	CERAMIC 100PF J		
C60 ,61			CE04KW0J471M	ELECTR0 470UF 6.3WV		J
C60 ,61			CE04LW0J471M	ELECTR0 470UF 6.3WV		S
C62 ,63			CE04KW1V100M	ELECTR0 10UF 35WV		J
C62 ,63			CE04LW1V100M	ELECTR0 10UF 35WV		S
C64 ,65			CC45FSL1H221J	CERAMIC 220PF J		
C66 ,67			CK45FB1H102K	CERAMIC 1000PF K		
C68 ,69			C91-0647-05	CERAMIC 0.01UF P	KPUUEM	
C70 ,71			CE04KW1V222M	ELECTR0 2200UF 35WV		J
C70 ,71		*	CE04LW1V222M	ELECTR0 2200UF 35WV		S
C72 -75			CE04KW1C101M	ELECTR0 100UF 16WV		J
C72 -75			CE04LW1C101M	ELECTR0 100UF 16WV		S
C76			CE04KW1V100M	ELECTR0 10UF 35WV		J
C76			CE04LW1V100M	ELECTR0 10UF 35WV		S

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C77 -80			CC45FSL1H101J	CERAMIC 100PF J		
C81 ,82			CE04KW1V100M	ELECTR0 10UF 35WV		J
C81 ,82			CE04LW1V100M	ELECTR0 10UF 35WV		S
C83 -86			CC45FSL1H101J	CERAMIC 100PF J		
C87 -90			CE04KW1V100M	ELECTR0 10UF 35WV		J
C87 -90			CE04LW1V100M	ELECTR0 10UF 35WV		S
C91 -94			CC45FSL1H101J	CERAMIC 100PF J		
C95 ,96			CE04KW1V100M	ELECTR0 10UF 35WV		J
C95 ,96			CE04LW1V100M	ELECTR0 10UF 35WV		S
C97 ,98			CC45FSL1H101J	CERAMIC 100PF J		
C99 ,100			CK45FB1H471K	CERAMIC 470PF K		
C101-103			CE04KW1V100M	ELECTR0 10UF 35WV		J
C101-103			CE04LW1V100M	ELECTR0 10UF 35WV		S
C104,105			CF92FV1H104J	MF 0.10UF J		
C106			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C106			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C107,108			CF92FV1H473J	MF 0.047UF J		
C109			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C109			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C110,111			CF92FV1H153J	MF 0.015UF J		
C112			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C112			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C113,114			CF92FV1H682J	MF 6800PF J		
C115			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C115			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C116,117			CF92FV1H272J	MF 2700PF J		
C118			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C118			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C119,120			CF92FV1H102J	MF 1000PF J		
C121			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C121			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C122,123			CK45FB1H471K	CERAMIC 470PF K		
C124			CE04KW1H010M	ELECTR0 1.0UF 50WV		J
C124			CE04LW1H010M	ELECTR0 1.0UF 50WV		S
C125			CK45FF1H223Z	CERAMIC 0.022UF Z		
C126			CE04KWOJ221M	ELECTR0 220UF 6.3WV		J
C126			CE04LWOJ221M	ELECTR0 220UF 6.3WV		S
C127,128			CE04KW1V100M	ELECTR0 10UF 35WV		J
C127,128			CE04LW1V100M	ELECTR0 10UF 35WV		S
C129,130			CC45FSL1H101J	CERAMIC 100PF J		
C131,132			CK45FB1H471K	CERAMIC 470PF K		
C133,134			CF92FV1H273J	MF 0.027UF J		
C135,136			CF92FV1H752J	MF 7500PF J		
C137			CE04KWOJ331M	ELECTR0 330UF 6.3WV		J
C137			CE04LWOJ331M	ELECTR0 330UF 6.3WV		S
C138			CE04KWOJ331M	ELECTR0 330UF 6.3WV		J
C138		*	CE04LWOJ331M	ELECTR0 330UF 6.3WV		S
C139,140			CE04KW1V100M	ELECTR0 10UF 35WV		J
C139,140			CE04LW1V100M	ELECTR0 10UF 35WV		S
C141-144			CE04KW1C101M	ELECTR0 100UF 16WV		J
C141-144			CE04LW1C101M	ELECTR0 100UF 16WV		S
C145-148			CE04KW1V100M	ELECTR0 10UF 35WV		J
C145-148			CE04LW1V100M	ELECTR0 10UF 35WV		S
C149,150			CC45FSL1H101J	CERAMIC 100PF J		
C151,152			CK45FB1H102K	CERAMIC 1000PF K		

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Ref. No. 参照番号	Address 位 置	New Parts 新	Parts No. 部 品 番 号	Description 部 品 名 / 規 格	Desti- nation 仕 向	Re- marks 備考
C153,154 C155 C155 C156 C157,158			CC45FSL1H101J CE04KW1C101M CE04LW1C101M CE04JW1V100M CE04KW1V100M	CERAMIC 100PF J ELECTR0 100UF 16WV ELECTR0 100UF 16WV ELECTR0 10UF 35WV ELECTR0 10UF 35WV		J S J S
C157,158 C159-162 C163 C164 C165		*	CE04LW1V100M CK45FF1H223Z C90-1332-05 C90-1455-05 CK45FF1H223Z	ELECTR0 10UF 35WV CERAMIC 0.022UF Z NP-ELEC 10UF 25WV NP-ELEC 0.1UF 50WV CERAMIC 0.022UF Z		S
C166-168 C166-168 C169			CE04KW1V100M CE04LW1V100M C91-0647-05	ELECTR0 10UF 35WV ELECTR0 10UF 35WV CERAMIC 0.01UF P	X	J S
43 CN3 E1 E2 ,3 E4	2B	*	E23-0159-05 E10-2211-05 E13-0235-05 E13-0820-05 E13-0235-05	TERMINAL FLAT CABLE CONNECTOR PHONE JACK (2P) PHONE PHONE JACK (INPUT,TAPE) PHONE JACK (2P) OUTPUT		
E5 E5	2B 2B		E11-0165-05 E11-0168-05	MINIATURE PHONE JACK (SYNCR0) MINIATURE PHONE JACK (SYNCR0)	UUEM KPX	
CP1 ,2 R33 R91 R92 R170			R90-0491-05 RS14KB3D151J RS14KB3D330J RS14KB3D470J RS14KB3D470J	MULTI-COMP 83KX7 J 1/6W FL-PROOF RS 150 J 2W FL-PROOF RS 33 J 2W FL-PROOF RS 47 J 2W FL-PROOF RS 47 J 2W		KPUUEM
K1		*	S51-1036-05	MAGNETIC RELAY		KPUUEM
D1 -39 D1 -39 D1 -40 D1 -40 D41 ,42			1SS133 1SS176 1SS133 1SS176 HZS6.8N(B2)	DIODE DIODE DIODE DIODE ZENER DIODE	X X KPUUEM KPUUEM	
D41 ,42 D43 D44 -70 D44 -70 IC1			RD6.8ES(B2) W02-5008L 1SS133 1SS176 TC9163N	ZENER DIODE DIODE DIODE DIODE IC(BILATERAL SWITCH X16)		
IC2 IC3 IC4 ,5 IC6 IC7			TC9164N LC7522 M5229P UPC4570C UPC7815HF	IC(16CH BILATERAL SELECTOR SW) IC(7CH GRAPHIC EQUALIZER) IC(7CH GRAPHIC EQUALIZER) IC(OP AMP X2) IC(VOLTAGE REGULATOR/ +15V)		
IC8 IC9 IC10 IC11 IC12,13		*	UPC4574C UPC4570C UPC7915HF UPC4570C UPC4574C	IC(OP AMP X4) IC(OP AMP X2) IC(VOLTAGE REGULATOR/ -15V) IC(OP AMP X2) IC(OP AMP X4)		
IC14 Q3 Q5 ,6 Q7 Q7 Q8			UPC4570C 2SC3246 2SC2878(B) 2SA733(A)(Q,P) 2SA733S(Q,R) 2SC2878(B)	IC(OP AMP X2) TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		KPUUEM

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CONTROL UNIT (X11-2500-11)						
D26	3A		B30-1012-05	LED(SLP-981C-50)VOLUME CONTROL		
D27	1B		B30-1223-05	LED (CD DIRECT)		
C1 ,2		*	CF92FV1H623J	MF 0.062UF J		
C3 ,4			CF92FV1H333J	MF 0.033UF J		
C10			CK45FF1H103Z	CERAMIC 0.010UF Z		
C11			CE04KW1C102M	ELECTR0 1000UF 16WV		J
C11		*	CE04LW1C102M	ELECTR0 1000UF 16WV		S
C12			CE04KW1V100M	ELECTR0 10UF 35WV		J
C12			CE04LW1V100M	ELECTR0 10UF 35WV		S
C13			CE04KW1A101M	ELECTR0 100UF 10WV		J
C13			CE04LW1A101M	ELECTR0 100UF 10WV		S
C14			CF92FV1H223J	MF 0.022UF J		
C15 ,16			CE04KW1V100M	ELECTR0 10UF 35WV		J
C15 ,16			CE04LW1V100M	ELECTR0 10UF 35WV		S
C17			C90-1416-05	ELECTR0 18UF 5.5WV		
C18			CK45FF1H103Z	CERAMIC 0.010UF Z		
C19			CE04KW1V331M	ELECTR0 330UF 35WV		J
C19			CE04LW1V331M	ELECTR0 330UF 35WV		S
C20			CE04KW1A221M	ELECTR0 220UF 10WV		J
C20			CE04LW1A221M	ELECTR0 220UF 10WV		S
C21 -24			CK45FF1H223Z	CERAMIC 0.022UF Z		
C25			CK45FB1H471K	CERAMIC 470PF K		
C26			CK45FB1H152K	CERAMIC 1500PF K		
C27			CE04KW1V4R7M	ELECTR0 4.7UF 35WV		J
C27			CE04LW1V4R7M	ELECTR0 4.7UF 35WV		S
C28			CK45FF1H103Z	CERAMIC 0.010UF Z		
C29 ,30			CK45FB1H471K	CERAMIC 470PF K		
C34			CK45FF1H223Z	CERAMIC 0.022UF Z		
C35 ,36			CE04KW1V100M	ELECTR0 10UF 35WV		J
C35 ,36			CE04LW1V100M	ELECTR0 10UF 35WV		S
C37 ,38			CF92FV1H104J	MF 0.10UF J		
C39			C90-1333-05	NP-ELEC 22UF 10WV		
48	2A		E23-0149-05	TERMINAL		
CN1		*	E10-2212-05	FLAT CABLE CONNECTOR		
X1			L78-0209-05	RESONATOR (4.194MHZ)		
CP1			R90-0483-05	MULTI-COMP 100KX13 J 1/6W		
CP2			R90-0492-05	MULTI-COMP 100KX8 J 1/6W		
CP3			R90-0483-05	MULTI-COMP 100KX13 J 1/6W		
CP4			R90-0803-05	MULTI-COMP 100KX7 J 1/4W		
R19			RD14GB2E1R0J	FL-PROOF RD 1.0 J 1/4W		
R53			RS14KB3A820J	FL-PROOF RS 82 J 1W		
R54			RD14GB2E100J	FL-PROOF RD 10 J 1/4W		
VR1	3B	*	R29-5018-05	POTENTIOMETER (VOLUME CONTROL)		
VR2	3B		R05-5019-05	POTENTIOMETER (BALANCE)		
S1 -29	1A,1B		S40-1064-05	PUSH SWITCH (EQ.POWER)		
S30	3B	*	S40-4078-05	PUSH SWITCH (LOUDNESS)		
S31	2B		S31-2126-05	SLIDE SWITCH (POWER TYPE)	UUEM	
D1 -5			DSM1A1	DIODE		
D1 -5			S5566B	DIODE		
D6			1SS133	DIODE		
D6			1SS176	DIODE		

A

E: Scandinavia & Europe K: USA

P: Canada

U: PX(Far East, Hawaii)

T: England

M: Other Areas

UE: AAFES(Europe)

X: Australia

J: Japan made

S: Singapore made

A indicates safety critical components.

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Telle ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
D7			HZS3.9N(B2)	ZENER DIODE		
D7			RD3.9ES(B2)	ZENER DIODE		
D8 -10			1SS133	DIODE		
D8 -10			1SS176	DIODE		
D11			HZS6.8N(B2)	ZENER DIODE		
D11			RD6.8ES(B2)	ZENER DIODE		
D12 -23			1SS133	DIODE		
D12 -23			1SS176	DIODE		
D24			HZS5.1N(B2)	ZENER DIODE		
D24			RD5.1ES(B2)	ZENER DIODE		
D25			1SS133	DIODE		
D25			1SS176	DIODE		
FL1	2A	*	FIP12AMW19A	FLUORESCENT INDICATOR TUBE		
IC1			CXP5014-250S	IC(MICROPROCESSOR)		
IC2			LC7565	IC(GRAPHIC EQ FL DISPLAY DR)		
IC3			UPC7805H	IC(VOLTAGE REGULATOR/ +5V)		
IC4			BA6109	IC(MOTOR DRIVER)		
IC4			LB1641	IC(MOTOR DRIVER)		
IC5			TLP3501	IC(PHOTO TRIAC +LED)		
Q1			2SA1286	TRANSISTOR		
Q2 -4			2SC1740S(Q,R)	TRANSISTOR		
Q2 -4			2SC945(A)(Q,P)	TRANSISTOR		
A1	2A		W02-0910-05	ELECTRIC CIRCUIT MODULE(REMOTE		

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 indicates safety critical components.

KC-207

SPECIFICATIONS

PERFORMANCE

Input Sensitivity

PHONO 2.5 mV, 47 kohms

TUNER/AUX/TAPE PLAY/CD/VIDEO 150 mV, 33 kohms

Signal to Noise Ratio (IHF-A) (IHF'66)

PHONO 79 dB, 2.5 mV input

85 dB, 5.0 mV input

TUNER/AUX/TAPE PLAY/CD/VIDEO 103 dB

Maximum Input Voltage for Phono 130 mV (RMS), T.H.D. 0.03% at 1,000 Hz

Frequency Response

PHONO RIAA Standard Curve ± 0.3 dB

(20 Hz - 20 kHz)

LINE \rightarrow SPEAKER 10 Hz - 70 kHz (-3 dB)

Total Harmonic Distortion

LINE \rightarrow SPEAKER

20 Hz ~ 20 kHz 0.004% at Rated Output

1 kHz 0.003% at 1/2 Rated Output

Output Voltage and Impedance TAPE REC: 150 mV/330 ohms

PRE OUT: 1000 mV/330 ohms

Loudness Control +8 dB (100 Hz) (at volume -30 dB)

Graphic equalizer control

(60 Hz, 150 Hz, 400 Hz, 1 kHz,

2.4 kHz, 6 kHz, 15 kHz) ± 12 dB

GENERAL

Power Consumption 15 W

AC Outlet 1 Switched (Except for some areas.)

Dimensions W 420 mm (16-9/16")

H 80 mm (3-1/8")

D 272 mm (10-11/16")

Weight (Net) 3.0 kg (6.6 lb)

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Note

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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